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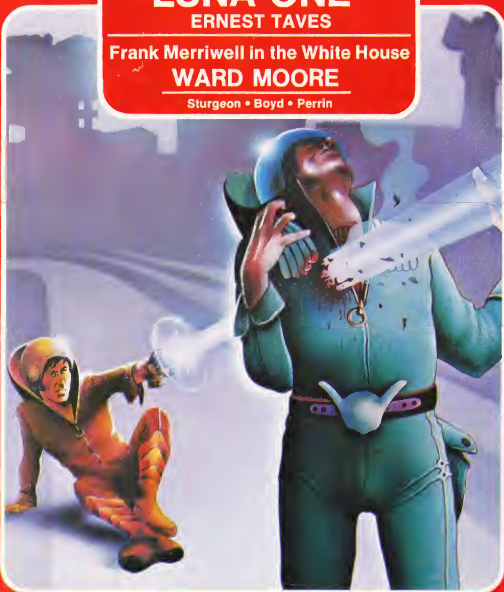
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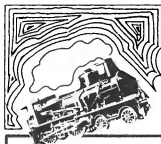
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Galaxy

SCIENCE FICTION
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Cover by Achilleos, suggested by THE DOOMSDAY GENE

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6. Profession _____

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8. What magazines, other than science fiction, do you read regularly?

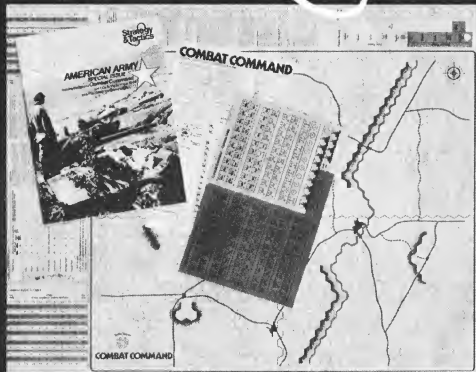
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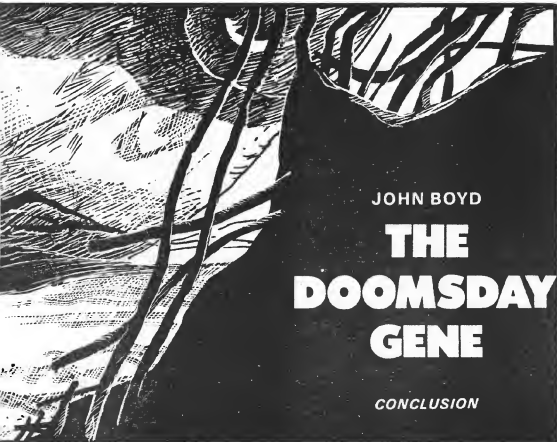
WHAT HAS GONE BEFORE

The year is 2062. Upon the Los Angeles campus of Cal Tech arrives AMAL SEVERN, young, brilliant and hard-driving seismologist, to complete his graduate work and study the San Andreas Fault. AMAL's obsession is the prediction of earthquakes, an art never mastered. He is also one of five unique products of human genetic engineering in the world—an AE 7, genetically programed to be the Ideal Man For A Crowded Planet—e.g., to make a major contribution to society at an early age, then self-destruct.

He himself has no idea that he is in any way unique.

The month is January. AMAL's work at Cal Tech is financed by the U.N., and his arrival is under the sponsorship—unknown to him—of the university's Department of Experimental Genetics, charged with keeping an eye on him and headed by DR. HEYWOOD. AMAL doesn't know it, but he is programed to make his major contribution in April, self-destruct in May.

At the annual Cal Tech Scientists and Models Ball he meets lovely LYN OBERLIN, psychologist and also a graduate student. She is work-



JOHN BOYD

THE DOOMSDAY GENE

CONCLUSION

ing her way through her studies by doubling as a secretary to DR. KLAY, chairman of Los Angeles County Board of Supervisors. LYN and AMAL discover something in common: she seems gifted with occasional prescience and has a certain talent for reading, with reasonable accuracy, people's thoughts from their facial expressions. AMAL, she discovers, has a strange ability to see into the past—this is his first visit to the United States, yet he seems to “remember” events that happened here in 1934, more than a hundred years earlier. As a psychologist, LYN is fascinated. She and AMAL go to the

historic restoration village of Dotham, Alabama, on the outskirts of Los Angeles, to research his “recollections” and discover they seem to tie in with the life of a racing driver, LEROY THATCHER, killed in an auto accident in 1934.

LYN and AMAL find time to fall in love.

Through her work with the board of supervisors, LYN provides AMAL with access to the Cal Edison moles, 7000 meters underground, to install his stress sensors on the San Andreas fault lines.

On April 26, 2062, AMAL predicts a possibly devastating earthquake

for the Los Angeles area, to hit on May 5, 2062, at exactly 1:33 P.M. His petition to the board of supervisors to have the city evacuated is turned down. With the assistance of HAL CARPENTER, journalist and student, RED BENTON, graduate student in law and LYN, AMAL manages to get his warning to the populace through underground publications and via an effective holographic dramatic presentation staged by the Cal Tech dramatics department and starring beautiful student GLORIA JAFFEE.

In the meantime DR. HEYWOOD has learned that South Africa's AE 7, a precociously brilliant mining engineer, has made his major contribution to society—a mining breakthrough—and self-destructed in a Johannesburg mine cave-in, accidentally taking thousands of lives with him. Another AE 7, a young Madrid chemical engineer, makes a major breakthrough in chemistry—and innocently self-destructs in an explosion claiming 17,000 other lives. Russia's AE 7, a poetess, completes her major epic and dies—inadvertently causing 70,000 other deaths.

It now becomes imperative to stop AMAL. But he has gone into hiding, having laid himself open to possible prosecution for violation of conspiracy laws because of the underground publication of his earthquake warning—the penalty may be death.

His dramatic presentation featuring the warning and starring GLORIA JAFFEE in the meantime has come under fire as causing public panic, and a legal petition is instituted by the Professional Mothers Association to halt its showing.

JAMES OSBORNE'S costume went beyond the flamboyance permitted by his age into those realms of the grotesque labeled by fashion-fanciers "Southern California trial lawyer." His most conservative element of dress was a lace handkerchief which fluttered from beneath his cuff. The boots he strode in were of beaten silver. His gray curls kissed the velvet of his scarlet cape—the very air was amorous of his jeweled hands. Counselor Osborne's entrance into the hearing room had to be seen to be disbelieved—and Amal was absent.

Osborne, Lyn decided, had dressed to match the orotund, balanced sentences of the eighteenth-century prose that rolled from him. Yet the rhetoric of his opening plea revealed aspects of *Los Angeles—the Last Day* Lyn had missed completely.

He spoke of danger in the panicky crowds created by the spectacular, of the show's lingering traumatic effect, of nightmares thus engendered. Next he planted a few traumas himself, warning the budget-minded of lawsuits against the city brought by the injured. For the civic-minded he spoke of industries frightened away from Los Angeles by earthquake scares. To the atheists he denounced religious crackpots who predicted the doom of the city. He reminded the religiously inclined that Los Angeles, named for the mother of Jesus, was hardly a fit city for God's

wrath. Osborne had something for everybody.

When Red Benton rose for the rebuttal he didn't rebut. Instead he asked to see the credentials of the most famous trial lawyer in Los Angeles. Tolerantly Osborne complied, handing Red his credentials card. As Red studied the card, he stood in sordid contrast to Osborne's elegance. He wore scuffed shoes and shiny blue serge suit, a stained and ill-knotted tie beneath his frayed collar. His hair was close-cropped. In a pathetic, last-minute effort to match the older man's stylishness Red had stuffed a soiled handkerchief up his cuff.

He seemed to be having difficulty reading the list of honors on the back of Osborne's card. His lips were moving.

"By golly, Mr. Osborne—you made three-eighty-eight on your bar exam out of a possible four hundred. That's pretty high."

"It's a record that has stood for twenty years."

Red handed the card back and said, "If I made a score like that I would know I had a friend on the examining board."

Slightly miffed, Osborne said, "I trust your nonsequitur isn't an inference on my integrity."

"No, sir! Nobody's more admired by students than you, Mr. Osborne. I once paid five dollars just to hear you lecture."

"Yes," Osborne said, mollified, "I do rate highly in the esteem of students."

"You sit right down, sir. I'd like to swear you in as my first witness. I got no real reason to question

you, but students don't often get a chance to talk to Counselor James Osborne face to face—and for free."

SUDDENLY Lyn was glad Amal had not yet arrived in the hearing room. As Osborne was being sworn in, Red turned and shuffled away. Then, in full view of spectators and board members, Red Benton scratched his behind.

Some onlookers sniggered at the gaucherie. One burst out laughing. Apparently oblivious, Red turned back to Osborne.

"Mr. Osborne, when you were a student you must have studied hard to make such good grades. Nothing works for me. I tried sleep-teaching and self-hypnosis."

"I have an excellent memory and a superb ability to elicit general principles from the law and apply them in particular situations. Industry and self-application are, of course, the first requirement..."

Surprisingly Osborne took five minutes of his valuable time to explain to the student how he had studied. Red listened with adulatory intentness. He had promised her some tricks, Lyn remembered, but why was he sending Osborne on an ego trip?

"That's technique, Mr. Osborne. That speech you just gave was talent. I don't think I ever heard anybody talk as good as you."

"Plato defines rhetoric as the chief art, young man. At the age of fourteen I memorized *The Trial*

of *Warren Hastings* and recited it with pebbles in my mouth . . .”

Osborne took another five minutes to explain how he had achieved his talent as an orator.

“I sure wish I could talk as you do. You’ve got a flair, Mr. Osborne. I bet you’ve never lost a case.”

Osborne smiled. “In my twenty years of practice I have, of course, lost a few, but my percentile rate of success . . .”

When Osborne had completed his lecture on success Red commented, “I can see why you charge high for your services.”

“My fees are above average, yes. Considerably above, though not out of line with the talent and experience they command. Besides, I have a select clientele. It can afford my fees—”

“Mr. Osborne,” Red interrupted, “if I was a lawyer like you I’d say there’s a discrepancy here. You’re working for the mothers’ union and everybody knows they don’t make much. Unless this is one of your philan—philan—charity cases.”

“I never work for nothing,” Osborne said, aggrieved. “The city appoints run-of-the-mill attorneys as public defenders.”

“Then the mothers must be rolling in wealth.”

“The mothers are supported by other civic-minded organizations and business groups.”

“Who are these other groups, sir?” Red asked.

“That’s privileged information.”

“Not any longer, Mr. Osborne,” Red’s voice had lost its

hesitant quality. “Under the Truth in Advertising Law of nineteen-seventy-one you’re required to furnish evidence of your assertions.”

“Just how do the laws of advertising apply here?”

“You’ve been advertising yourself and the quality of your clientele for the last fifteen minutes.”

“Only in answer to your questions.”

“No, sir. In response to my remarks. Mr. Chairman, I request that the stenographer read the substance of my remarks. They will show Mr. Osborne has been asked only one question—who is paying his fees?”

Lyn read aloud Red Benton’s remarks. There was not a question among them save the last.

BY ORDER of the chairman and under oath Osborne was required to list the sources of the fees paid him for entering the plea. The mothers had strange bedfellows. Some of Osborne’s contributors were understandably in his camp, such as the All-Year-Round Club of Southern California and the California Auto Club, but one contribution drawing a gasp from the crowd was five thousand dollars by the Los Angeles Association of Morticians.

Red Benton entered a plea to the chairman.

“Sir, this list speaks for itself. The contribution of the mothers, a mere one hundred dollars, points to the fact that they are being used—unknowingly, I’m

sure—as a front for others. Since Mr. Osborne has made such a touching appeal to our civic pride, I request that the chair ask the representatives of the organizations present which have contributed to Mr. Osborne's fee of fifteen thousand, four hundred dollars to step out from behind the skirts of the mothers and come to the witness stand to explain their contributions."

Only one man rose and came forward at Kley's request. He was Merriweather Andrews, head of the Los Angeles chapter of the American Demographer's Association. Old enough to have survived the Holocaust, Andrews came forward as rapidly as his physical condition permitted and was sworn in. Since he was formally a hostile witness, Red questioned him first.

"Mr. Andrews, would you explain why a demographer would contribute funds to a petition to suspend a student documentary conceived and executed as an educational experiment?"

"Yes, sir. My organization is dedicated to the public good—and the greatest public good is a negative population index."

"Surely you're aware, sir, that such a trend already exists?"

"Yes siree!" The old man exploded with enthusiasm. "But let's help it along, I say. I read where some young fellow was predicting an earthquake Wednesday. Sounds reasonable to me. I've been predicting one for seventy years. During the population sink—hell, I was hoping for one."

The watchword around here for so long was "Keep calm, I think," that it's a bit difficult to get used to the new image: "On to Victory!" Nevertheless, by the usual miracle (really meaning extraordinary editorial acumen) we continue the chronicle of our splendid Spring list.

We promised word on the Adult Fantasy: (all \$1.25)

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with backgrounds, anecdotes, notes, comments, praise, blame, and a sturdy section on sword and sorcery which we freely admit is not our dish but it has a place, it really does. And somewhere, sometime, an epic s & s will hit us in the schnozz and we will publish it.



We gave you a very quick once-over-lightly on our s.f. last time round, so to remind:

TRULLION—ALASTOR: 2262, *the first brand new, all un-previously-published novel we've had from Jack Vance in too long. It's the start of a series to be based on the worlds of the Alastor Cluster. Pure Vance. We don't need to say more.*

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On to Victory!

BB

His enthusiasm was contagious. The spectators were smiling.

"Looky here, young fellow. You can take a drive on Sunday. I remember when a Sunday afternoon's drive had to start on Saturday. We built highways with taxes from five hundred million people. There are less than half of that now. Cut out a few more and there'll be tennis courts on the freeways."

"Are you saying you hope for an earthquake?"

"Not hoping, son. Just thinking: *Maybe...*"

"You don't want the people prepared, so you donate to a campaign to stop their preparations?"

"Prepared? Who's ever prepared to die? Won't be anybody in those towers but damned fools who've been warned. So good riddance."

"What about your own life, Mr. Andrews?"

"I'm leaving for Halifax tonight."

The spectators laughed and, after the room fell silent, Red turned to Osborne, "Your witness, Counselor."

"No questions," Osborne snapped.

In one of the shortest deliberations in committee history, six black balls and one white rattled into the bowl and the mothers' petition was denied. Lyn's announcement was greeted with applause.

A MAL and Hal were still absent when she met with Red in the automat. He had risen so in her

her esteem that she offered him a lift back to the tower as they sipped coffee, hoping the other two might arrive.

"When you came shambling out to match Osborne's splendor I thought you were pleading *nolo contendere*," she confessed.

"It was a part of the act," Red said. "I was giving Osborne a false sense of security. Dramatics is a required subject for law students at U.S.C.—and I have a flair for acting. The character was based on Will Rogers, an early actor whose film clips I studied. The scratching was borrowed from another actor in an old movie. The times are changing in legal circles. Shakespeare's losing to Stanislav."

"Luckily for us that funny old man was in the audience."

"Oh, 'Merry' Andrews? I suspect his donation to the mothers' cause came from the Students' Assistance Fund. I talked over our defense with Amal."

"He wouldn't, Red. Bribing a witness is a crime."

"Amal knows it. I've coached him on the legal pitfalls of stateless persons. But he would have no trouble twisting Gloria Jaffee's arm."

"Finish your coffee," she snapped. "I've got to get home and make a telephone call."

Her mind was seething as she gunned the Dunemaster to the freeway and zipped toward University Tower, ignoring her passenger completely. Red had revealed more than she had asked for when he said Amal could "twist" Gloria Jaffee's arm. She

knew Amal occasionally had been seeing Gloria alone, theoretically on business. Now she wondered about that business. Had Gloria been demonstrating her *S* waves and *L* waves to the seismologist?

Since Dotham, Amal had been attentive and devoted to her, Lyn admitted, but he had been too dedicated—no, consecrated—to his damned earthquake to be amorous. At least she had thought his concern had been the earthquake. But with her bought red hair, her cantilevered bra and a mincing twitch to her overpadded hips, The Barbie doll of the Cinema Department could have been producing a few private spectacles for a naive Arabian who had gone ape over Jean Harlow in *The Redheaded Woman*.

Now it was becoming clear to Lyn why Amal had missed a hearing that meant so much to all of them. After he and Gloria, illegally and unethically, had hired a senile old man to tear Osborne's petition to shreds, Amal had known in advance what the outcome of the hearing would be.

And just where was Miss Gloria Jaffee during the hearing? In a Cal Tech pod with Amal Severn? Lyn wheeled the Dunemaster into the parking basement, swerved into her parking place, slammed on the brakes and asked Red Benton, "Just where was Gloria Jaffee during the hearing?"

"Near the front row, center," Red said. "She left early, while you were in the deliberations room, to catch a train for New Jersey. She asked me to tell you she hoped you

weren't killed during the quake."

No, only maimed, Lyn thought.

THERE had been another spectator in the audience—Dr. John Heywood, whose name Lyn had heard once and forgotten. He had devoted little attention to the flamboyant Osborne, but studied carefully the girl at the council table on the dais, marking her high forehead, thin lips, strong jaw and alert, intelligent eyes. Nils Larsen had been remiss in describing her beauty. It was classic. And there were harmonies in the movement of her lithe, poised body. Little wonder Amal Severn had broken the restraints of his conditioning.

There was no doubt in Heywood's mind that Lyn Oberlin had made the telephone call to Columbia, South Carolina.

Next Heywood had studied the techniques of Red Benton. He had seen at the outset of the hearing that Osborne was in a contest with a superb legal mind. Heywood had departed at midpoint in the hearing, knowing that Amal Severn had erected around himself formidable bulwarks against his fate.

Heywood was back in his office at Cal Tech as Lyn entered her apartment to call Amal. Reluctantly, the head of the Department of Experimental Genetics was putting through a call to the chief of an obscure bureau in the U.S. State Department.

AMAL was out, Nils Larsen told her, but had left word he would call her later in the evening.

Later in the evening proved to be past eleven and the fatigue etched on Amal's face on the screen drove from Lyn's mind any discussion of a tenuous and still uncertain personal problem that concerned them both. Amal had got the news of the hearing on the radio, but he smiled at her firsthand report on Osborne's regalia and Red's tactics.

"Red hinted that Merry Andrews might have been a plant. If you had a hand on it I'm going to lecture you on the ethics of city government," she told him.

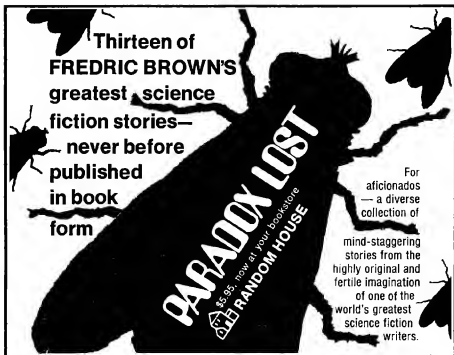
"Give your lecture on ethics to the marines," he said. "Red briefed me on the ordinances against stateless persons. You won't be hearing from me personally for a while, but you can always locate me through Nils. Listen carefully to what he says and limit your conversation to business matters."

From the grin he directed off-telephone, Lyn knew Nils was in the room and listening.

"I'd like to spend all my time with you," Amal added, "but I'm skewered by urgency. I'll contact you in the morning about the work I'm doing but, for now, good night—and bands of angels lull thee to thy rest."

Quoting Hamlet's epitaph to her was hardly the best way to send her to bed, she thought, but he was tired. His shoulders were slumping. Though he was smiling as he hung up, she could feel his weariness even over the telephone.

Vaguely troubled by her first premonition in weeks, she prepared for bed. In the past, when the



forms of her future hovered close, they had been neither sinister nor hostile, only watchful and indifferent. Tonight a menace seemed to be waiting behind the curtain of time.

Her feeling came merely from her concern over Amal's fatigue, she told herself as she lay back, trying to relax. She had glimpsed a wistfulness in his eyes, a yearning for rest. An after-image of his face lingered in her mind after she turned out the bedlamp, the image stirring a memory of something not seen but sensed, a complex of feelings, tenuous, indefinable, just beyond her recollection.

In the hiatus between waking and sleeping her memory made the connection that had eluded her conscious mind and she remembered that the emotions had

come to her from a poem by Keats Amal had read to her on the Emersons' porch:

*..... and I shall die,
Like a sick eagle
looking at the sky.*

For a moment she sat up in bed, seeking full wakefulness to sweep from her the ineffable and black despair into which she had been falling in her sleep. Osborne had promised her nightmares, a crude trick for triggering the subconscious into autosuggestion—her nightmare had been approaching on the subliminally recalled lines about death.

She lay back to a sound sleep. If she died in an earthquake—then, as Merry Andrews had said, she deserved to die.

THE morning brought Lyn less faith in her analytical power and more in her psychic power. When she started down to breakfast she found outside her door an eight-page newspaper with a banner headline:

EARTHQUAKE EXPERT
PREDICTS "GREAT
PALMDALE" TO STRIKE
TOMORROW AT 1:33 P.M.

Amal had "contacted" her about his work, in a manner that put him outside the law. She took the paper and stepped inside, knowing that in her hand was the project that he and Hal had discussed secretly on the day of the first hearing. Now both would be open to all manner of charges, not the least of which was publishing an unlicensed newspaper. The underground press had been revived in Los Angeles to spread a proscribed rumor and incite civic turmoil; and Amal, despite his vulnerability, shared in this conspiracy. A cold wind was blowing in her mind as she opened the newspaper.

The feature article inside supported the headlines with a summary of Amal's findings from the stress sensors, explained his solar tides theory in relation to the coming eclipse of the sun and, in the clearest exposition she had yet read, explained the fluctuations in the Earth's magnetic field. Safety zones around towers were defined and all beach dwellers in cottages, houseboats or towers adjacent to the sea were urged to evacuate inland beyond the Newport-Inglewood Fault Line.

On the last page an editorial admitted the editor had placed his person and career in jeopardy by publishing the prediction in the belief that if only one life were saved through his act he would consider his gain worth more than the Pulitzer Prize for Journalism. Despite her alarm Lyn smiled. With the mention of the Pulitzer Prize for Journalism, Hal Carpenter might as well have signed the editorial.

She was a quarter-hour late to the commissary where she found the underground paper far more in evidence at the tables than the morning edition of *The Times-Herald*. The usual chatter of breakfasting students was subdued. Four, sometimes five or six students were gathered at each table talking or listening intently.

Seated alone with an untouched roll and coffee, Lyn's thoughts swirled around Amal. Superficially he was not harmed by the publication of his prediction, which was a matter of public record, but he was involved in the conspiracy to publish the paper—given his nature he couldn't have acted otherwise. She could only hope he had taken care to prevent any evidence from pointing directly toward him.

"May I join you, Lyn?"

Rising, her glance traversed the two-meter frame of Wallace Bergner, a graduate geologist whose pod was on the same floor as her own. He was dressed in a business suit with white shirt and tie. His hair was neatly trimmed and brushed, and his brown eyes, magnified by horn-rimmed specta-

cles, held a rather gentle plea.

"Of course, Wallace. Sit down."

Her welcome was not a polite formality. Wallace Bergner's thoughts, easily read because of his magnified eye movements, were never obnoxious. He seldom dated girls but spent his odd hours exercising on Muscle Beach. His libido was sublimated in physical culture—he was infatuated with his own biceps and triceps.

He carried no tray, only a cup of black coffee, and as he settled across the table from her he pulled a packet of wheat germ from his coat pocket to sprinkle into his coffee.

"The thirty-second floor is having a picnic in the woods Wednesday noon," he said, "and other residents would like to have you join them. It's a pound party with different guests bringing different items. Here's a map showing the area where our group will meet and a list of items we'd like you to bring."

She barely glanced at the mimeographed sheet he handed her, because his eyes had told her he was the evacuation leader for the 32nd floor. The information vexed her. She was supposed to be an inner member of the earthquake committee, and without her advice or knowledge the tower had been organized, floor by floor, obviously with care since Wallace was the most commanding figure on her level. In this feat of secret organization she detected the fine hand of the expert on Student Restraint Laws, Red Benton.

Deliberately studying the brown eyes across from her, she said, "I'm sorry, Wallace, but I have a one o'clock class Wednesday."

His eyes revealed his confusion. "It won't be a picnic without you, Lyn."

She glanced at the list he had handed her.

"This is a strange picnic list, Wallace. Who could eat two leg sprints and four hundred yards of one-inch bandage gauze? Eight cadmium one-phase batteries—aren't those for hand lasers? Surely you're not holding a turkey shoot with laser guns?"

She looked at him and saw him thinking: *But she's supposed to know about us. He told me to guard her with my life. Why is she staring at me?*

Suddenly he steadied on an inspiration.

"A friend of yours said you might bring some pemmican."

Then it was Amal who had assigned him as her bodyguard. Suddenly she smiled.

"Of course I'll be there, Wallace." She added, lowering her voice to conspiratorial levels to let him know she knew: "What provisions have you made for pharmaceuticals?"

His huge bulk heaved in relief. "Three marshals have keys to the drugstore pod. The druggist will lock up and leave at one o'clock."

THOUGH Lyn was ten minutes late to the office, Kley had not arrived. A methodical reader, he would scan the underground paper twice, once for the earthquake instructions and again for evi-

dence of a conspiracy. Without waiting for his instructions she went about preparing for an emergency conference, setting the switchboard in the front office to rotate the incoming calls to each girl in turn.

"All personnel will be on the phones this morning," she announced. "All category-A officials calling in will go on a listen and no-speak connection. Non-official calls for Doctor Kley will be given the 'in conference, call back' reply."

As the girls put away their routine work and reached for their individual call recorders Lyn went into her office and dialed Nils Larsen, knowing Amal would not answer. She caught Nils as he was leaving, fully dressed, a cigar protruding from his shirt pocket.

"Nils, did Amal leave a message for me?"

"He said join him in Uncle Moses' country for the rock-and-roll session. He'll be there at two o'clock today. Does that mean anything to you?"

It meant he would meet her by the mill pond and she nodded. Amal had warned her to limit her conversations with Nils to business only, but his cigar intrigued her. Pleasantly, without being the least bit flirtatious, she said, "I didn't know you smoked, Nils."

"I don't." He grinned. "Chemistry gave me the cigar, imported from Madrid. Amal assigned me to the laser locker and it has a combination lock. This little cigar can blast open a bank vault."

"Then, for heaven's sake, put it where it can't be seen."

She hung up, connected the official stenographic recorder to the conference control board and began to telephone the secretaries of the supervisors, telling them to stand by for a group conference at ten. Most of the offices were manned by *pro tem* supervisors. Of the supervisors at the original earthquake hearing, Lyn found only Police Chief Jeffers, Supervisor of Public Safety, and Howebrand, of Spectaculars, on hand. After a moment's deliberation she called the city attorney's office and the secretary of the Los Angeles commandant of the California Highway Patrol.

She had alerted all concerned officers when Dr. Kley appeared in her doorway.

"Set up the emergency telephone procedure in the front office and get the supervisors on the line for a conference. The agenda will cover the earthquake rumor and remedial measures for civil commotion. Better get the D.A. and the local commandant of the C.H.P. in on the proceedings."

"Yes, sir."

He turned to go, paused and turned back. "By the way, the registrar at Cal Tech called me Friday. He wanted me to find out on the q.t. who called Columbia, South Carolina from this office a week or ten days ago. Ask around when you get the time."

"Yes, sir."

Honesty prompted her to answer immediately, as she would have done had he merely asked her who made the call, but the phrase "on the q.t." alerted her.

From her knowledge of governmental procedure she knew that someone had checked the Columbia archivist's log and found her inquiry about Leroy Thatcher, a call she had made at the city's expense without personally identifying herself. But why would anyone at Cal Tech be interested in her interest in the frozen corpse of a racing driver dead almost two centuries? Had some experiment been performed which the medical schools wished kept secret? And was some nation-wide infrastructure of medical counter-intelligence operating from the universities, seeking to warn her away from the area?

Mulling a problem more immediate to her than earthquakes, she welcomed the diversion of flashing lights along the intercity conference board as she switched in the calls. Red and Amal had been right in holding her aloof from any conspiracy. She could do her job as a governmental employee unhampered by guilt feelings and keep her mind free to ponder the curious relationship between a telephone call, a dead man whom Amal thought he remembered and Cal Tech where Amal studied.

She leaned to the intercom and said, "Your conference is ready, Doctor Kley."

KLEY opened with a formal statement of the agenda and closed on an informal note: "I'm assuming the public will react to the rumor. Two-thirds of the board members who heard the original argument are out of the city and I'm planning a stroll in the

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park tomorrow soon after lunch."

"Transportation here, Mr. Chairman. I can verify the assumption. For the past week there's been a general exodus from the city and a decline in visitors."

"Transportation, order the railroads to suspend operations between one and two tomorrow."

"City attorney here, Mr. Chairman. Such an order would be a *de facto* endorsement of the rumor and leave the city open to time-lost suits."

"Transportation, couch your order in the form of a suggestion. Engineering, have crews standing by at the master valves on the gas lines to close them for emergency repairs at one-thirty tomorrow. Health, walk or carry your hospital patients into safe areas for officially authorized sunbaths—even if it's raining. Chief Jeffers, what about your prisoners?"

"I'll have to leave them in the tower, Mr. Chairman. If you go along with this prediction I'll need every man I've got to patrol the residential towers."

Kley was ignoring the flashing lights in front of him as various officials asked for the floor. He plowed through the agenda, issuing precise instructions which reflected his acceptance of Amal's prediction. He was following Amal's evacuation procedure, which would cost the city nothing but an extra effort on the part of its employees. Kley was not advocating an evacuation from the towers, merely preparing to assist those who wished to evacuate.

Obviously he was gambling that public opinion would support him if the slightest temblor shook the city. As always, Lyn listened, fascinated by the give and take of the democratic process.

Despite Kley's ramrodding, it was eleven before the agenda reached the subject of crowd control. In this area Kley yielded the floor to the California highway patrol's local commander.

"We'll install the old pre-Holocaust Sunday afternoon traffic directives to implement the master plan's proposal for clearing the beach areas."

With wry amusement Lyn noticed that Amal's plan had become "the master plan."

"Chief Jeffers here. Every cat burglar in Los Angeles is sharpening his claws over this scare. With eighty floors in each of the one hundred and ten empty towers to protect, plus riot control on the ground, the police department would like to offer a plan to squelch the rumor entirely." Jeffers paused. A portentous rustle of paper alerted the conference to an important announcement. "I've been authorized by the U.S. State Department to announce that the earthquake predicted by Amal Severn, a male Caucasian, aged twenty-two, is true in fact, though false in substance."

"What in hell has the state department got to do with a Los Angeles earthquake?" Kley exploded.

"I don't know," the chief admitted, "but here's the official prediction. I'll read it. 'South of

Victorville the San Andreas Fault jogs eastward. At that point the granite facings of the fault are permeated with iron ore, which creates a higher degree of bonding than the original equations consider. Fault displacement will occur at the hour predicted no farther south than the Victorville Intercept and will be felt in Los Angeles only as a minor temblor.' And that's what the statement says, Mr. Chairman."

"Chief, you and I know something about announcements. If group-think can authorize a four point eight, then Severn can authorize a nine point five. Take your choice. Any prudent citizen would accept Severn's figure and evacuate. I know. I'm a prudent citizen."

In the laughter following Kley's quip Lyn thought: *There is no medical school at Cal Tech . . .*

THE voice of Jeffers brought her back to the conference.

"It has been suggested that the D. A. publicly offer Severn an arrangement: if he reports to the police before midnight, studies his own figures and admits his error, then he will be bound over in the tower to answer only to his non-capital offenses."

"The prediction's now in the public domain, Chief. What's he being sought for?"

"Seven violations of the Students' Restraining Act plus conspiracy in the first degree. He bought the newsprint on which an unlicensed newspaper was published."

"If he recanted," Kley pointed

out, "the public would figure he was acting under duress."

"Not a chance. His honesty profile is too high."

"And what if he doesn't report?" Kley asked.

He would not report, Lyn knew. His earthquake phobia would prevent him, for he would know that he would be detained on the 68th floor of the courthouse tower. Lyn's growing anxiety rocketed to panic when Jeffers answered Kley's question.

"We'll throw the book at him. As a stateless person he can be sentenced *in absentia*."

"This is a police matter, Chief," Kley pointed out.

"No, Mr. Chairman. The department is requesting that a reward of twenty-five thousand dollars be posted. The fugitive's hologram prefers the hunting preserve to the gas chamber. Without a reward, every sportsman in the city would be aiding and abetting to get the fugitive past the midnight deadline."

"Comptroller, what do you say?" Kley asked.

"It's a good wager, Mr. Chairman. If he reports before midnight, the city will lose the reward. If he doesn't, the revenue accruing from the sale of hunting licenses might top half a million."

"Very well, I'll err on the side of humanity. Post the reward. Now, gentlemen, let's consider the disposition of emergency vehicles."

More than the inhumanity, the casual indifference in the words shattered Lyn, undermining her confidence in the benignity of a

government which, as a matter of policy, could order a young man to his death in the moral equivalent of war. The "take" in the "give and take" of the democratic process went mostly to the process servers, she thought.

But why had Amal, with his brilliance, signed for the newsprint on his green card? That idiocy was Red Benton's fault—Red had failed to brief Amal properly on the vulnerability of a stateless person. Amal must not have known that first-degree conspiracy was a felony established to permit the elimination of native radicals. All the chaos of history, its violence and the violent repression of violence, focused in one moment on Lyn's mind and her thoughts were fragmented by the question: why had Amal signed for the newsprint?

The voices on the phone were drifting from her, growing remote, lulling her with their sibilance. She seemed to be floating through the voids of her mind, relaxed now, waiting for a sign.

She felt the word "pemmican."

Amal had gone into the hunting preserve to get venison for pemmican—venison for pemmican. She clung to the floating phrase, no longer anxious or even concerned, awaiting the revelation in the words. The void within her became gray, straited with darker, coiling maculations. From the grays grew hues and tints, forming the shapes of a vision.

She went into a trance.

SHE found herself standing at the San Fernando gate of the hunt-

ing preserve watching Amal, bent under the weight of a small deer, emerge. He wore a mottled green and brown jacket with matching jeans. A Chamberlain sweatband bound his forehead beneath the mandatory red cap of the hunter. Laced around his ankles were the winter moccasins of the Iroquois Indians.

His longbow and sheath of arrows were missing.

She knew this: on the day the hunters came for Amal they would face prey more familiar than they with the terrain of the killing ground. They would come seeking a camouflaged shadow that moved with moccasined stealth—and the hunters would become the prey of their quarry who would be armed with a silent and deadly longbow he had cached earlier among the canyons and boulders of the vast preserve.

Red Benton had briefed Amal well. Amal had signed for the newsprint with the full knowledge that he might be apprehended and he had taken precautions.

The focus of her psychic powers was blurring, the vision from the past fading, and she sent into the void from the conscious periphery of her thoughts the talismanic phrase, "sick eagle," hoping to garner a glimpse of the future.

Tiny and remote, as if viewed through the wrong end of a telescope, she saw the stanchion of a stripped tower slowly topple and fall. She herself was high among the griders of a naked tower and appalled by a fear for Amal somewhere close at hand. Even as the vision faded she heard, clearly

and inexplicably, a series of sharp reports followed by metallic clangs and rattles.

She had seen enough to know that Amal's prediction was more dreadfully accurate than his worst fears had assumed. At no time had he hinted that the stanchions themselves would fall. On the contrary, he had said repeatedly that the towers would stand, that only the modules would fall.

Over the phones the voices grew clearer—the conference was ending. Lights began to flicker off on Lyn's board and finally Kley's voice came to her over the intercom.

"That's it, Lyn. Wrap it up. And don't think I'm tossing your boy friend to the lions. If one linkpin shears when the ground rolls tomorrow I'm granting him full amnesty."

At the moment the matter was academic in Lyn's mind. Tomorrow there would be no Los Angeles left to grant Amal amnesty.

But would the stanchions fall tomorrow?

From the past she knew that her precognitions, though accurate, were often seen out of context of the full range of future events of which they were a segment. But Amal had been near her in the vision, so he had escaped the hunters of Angeles Crest. In the hyper-suggestibility of her post-trance period, it occurred to her that the popping sounds, aurally so well-defined in her trance, might have been the crack of rifles, the metallic clang and rattle that of bullets striking among the girders.

It was almost one o'clock. Skip-

ping lunch, she could reach the mill pond by two. She would tell Amal all that she had discovered. His analytical power, so much greater than her own, might solve the riddles that perplexed her.

Rapidly she began to remove and label the taped records of the conference, preparatory to filing them. Efficiently she went about her tasks in the service of a government with which she had grown disenchanted.

VIII

AMAL had done well in choosing the historical village for his refuge, Lyn reflected, as she shimmed into the cotton dress she had brought with her. His hologram would not be broadcast here. And here, too—in an era when lawmen were treated lightly and the folk heroes were Pretty Boy Floyd and Clyde Barrow—he would find friends bold enough to conceal him.

She put on high-heeled shoes, walked out of the station and cut across Lee's Square toward Hamburger Heaven. At the Confederate monument she could see through the trees to the Essex parked before the hamburger stand and looked at her necklace watch. One-fifteen. Plenty of time to grab a bite before she drove out to meet Amal.

Knowing that the local sheriff was kept posted on Los Angeles fugitives and would have the station area watched, Amal would not attempt to use the car. She suspected a student confederate would drive him to the San Bernar-

dino boundary of the compound and that he would come in over the fence from the north.

The Emersons' delight at seeing her did as much to lift her spirits as the free ten-cent hamburger and coffee did to lessen her hunger. They could afford the treat. Their business was doing so well they foresaw prosperity just around the corner.

Insulated in the 1930s, they knew nothing of the turmoil in Los Angeles. Their questions about Amal she answered merely by saying that he was very active, that she and he were still planning to be married in Dotham next Sunday and that the government had confirmed Amal's predictions of an earthquake.

To her sadness Lyn learned from the old couple's eyes that a rift had developed in their marriage. Emily had finally come into the open with her confession magazines. Reaffirming his commitment to science fiction, Vernon had grown caustic toward his wife's lowbrow literary tastes and was lording it over her anonymous writers by dropping the names—probably pseudonyms, if he only knew—of his own by-lined authors. Privately Lyn sided with Emily. The romantic tales might be fiction, but they approached truth closely.

Nostalgia was her excuse to the Emersons for her return to Dotham without Amal. Under different circumstances nostalgia might indeed have given her a reason for her visit. Wheeling the Essex down the tree-arborescent streets of Dotham, seeing again

the white houses behind the green hedges and lawns, she grieved for her loss of innocence and passing Reb's place she felt the pang of happiness remembered.

Then she was driving the unpaved portion of the road, crossing the creek and parking as of old beside the Emersons' hedge. As she swung down the path through the woods to the mill pond her throat ached with nostalgia.

For a moment she stood on the bank. The pond was a placid sheet of water to a casual eye, but much more to a girl who in its waters had first been touched by the magic wand of love. Forcibly she turned her gaze away and followed the path toward the mill, the meadow and the hillcock, scene of the first and only consummation of her love for Amal. However brief that consummation, she was beginning to suspect it might be commemorated by something more than a diamond ring and a promise of marriage.

Old Uncle Moses sat at his favorite spot, his bald head nodding over a fishing pole set in the bank. The serenity exuding from the ancient black was reassuring to her after the swift pace changes in Los Angeles. In him was an unchanging simplicity.

Rather than startle him, she called from ten yards away, "Any luck, Uncle Moses?"

"No'm. Catfish ain't biting yet. How's y'all?"

The phrase "y'all" impacted against her consciousness. No old dinky who had spent his life in Dotham, Alabama, would use "y'all" to address one person.

Walking closer she looked down at him intently, deliberately burlesquing the dialect. "I's jes' fine, Uncle Moses. How's y'all?"

He looked up at her smiling, but in the eye not covered by a cataract she saw a flash of alarm. She focused her gaze on his clear eye, studying it and the muscles of his face intently, knowing he would read her stare as hostile. She no longer cared. The time for social amenities was past. If Uncle Moses turned out to be an informer both she and Amal were in danger—she for aiding and abetting a fugitive.

With her post-trance sensitivity she read clearly a question Uncle Moses was asking himself: *Have I blown my cover?*

IF HE had a "cover" he was not an informer but an agent. Perhaps his cataract was made of fish skin. His head could be bald from shaving, its fringing hair dyed gray. She reproached herself for her past negligence. Weeks previously she had wondered about the surging libido of a seventy-year-old man and then permitted herself to be distracted from her chain of thought. His lasciviousness, carefully considered, might have given her a clue to the conspiracy surrounding Amal.

He was asking, "How's Mr. Amal?"

"He's wanted by the law, Uncle Moses. There's a reward of twenty-five thousand dollars posted for his apprehension."

"Whooeee! How you and him get married if he do time?"

"We're not getting married. I'm after the reward money."

"Looked to me, last time, like you sho' loved that white boy."

"Not twenty-five thousand dollars' worth. Listen carefully, Uncle Moses, and you can get some of that money for yourself. Amal's coming to meet me. As soon as you see him you amble down the creek, cut over to Reb's Place and have Reb telephone the sheriff. I'll coax Amal over for a barbecue sandwich. If the sheriff's waiting to arrest him you've made yourself five dollars."

The old man considered her proposal, looking out toward the cork on the end of his line.

When he spoke his voice had lost its quaver and two centuries had dropped from his manner. Suddenly the humble, twentieth-century "darker" was a modern U.S. African, alert and imperious.

"Don't concern yourself with methods for the suspect's capture, Miss Oberlin, and don't try to con me away from here so he can escape. The area is surrounded. If you cooperate with the arresting officers I'll see that you get your share of the reward."

"Cooperate how?"

Since he would see that she got her "share of the reward" Uncle Moses was a man of authority. He had said "the arresting officers" instead of "us," so he was not a policeman.

"Walk to the top of the hill and look around—as if you were waiting and anxious."

Only one other person had known she and Amal were meeting here. She would share the re-

ward for Amal's capture with his roommate, Nils Larsen.

"Who are you?" she asked the African, openly staring now.

"Never mind who I am. Just get on the hill. Stay there until the police tell you it's over."

But she had read his answer before she turned to comply. "Uncle Moses" was an operative of the Eugenics Surveillance Agency.

She had never heard of the Eugenics Surveillance Agency, but whatever else it did it certainly hired actors as operatives. Looking down at Uncle Moses as she walked up the hill, she saw that he was slumped back into his nodding posture, for all the world an old-fashioned darky enjoying a fishing outing. His bald head gleaming in the sunlight reminded her of Amal's remark *Uncle Moses would not have to get his head shaved to join the Skinheads on the Fort Tejon Reservation*. . .

She had not paid close enough attention to Nils' words, as Amal had instructed her, but for once she had profited from her error. Amal had not wanted her here, but on the Skinhead Reservation. Still, Nils was definitely one of "them." After she had spent the time required of her here on the hill, growing more and more anxious about Amal, she would spend the rest of the afternoon calling on Nils Larsen at Cal Tech. He knew the secret of Amal's identity and would know why the Department of Experimental Genetics was intent on eliminating Amal.

Tomorrow—if Amal escaped

capture today—she would drive out the Ridge Route after a routine day's work at the office, drop from the guide band and be with Amal on the Skinhead Reservation when the earthquake struck. There at least he was safe from the authorities. He would not be distinguishable from any chance supplicant for admission to the sect and, in his religious fervor against the gods of technology, Brother Kiefer would not permit even a transistor radio on the reservation.

IT WAS characteristic of Amal's lack of infatuation with status that he had never once mentioned to her that his apartment was on the 67th floor, only one level below the faculty residences, and she felt the irony of her position as the elevator rose. Engaged to one of the most eligible bachelors in Pasadena, she had never entered his pod. Now, during the dating hours, she was calling unannounced on the roommate he had wanted her to avoid.

In a way the police had done her a favor by holding her, as a law-abiding citizen, on the mound until three-thirty as a lure for Amal. They had delayed her call on Nils until slightly after four o'clock when she could arrive inconspicuously with other incoming females, while all males were sequestered in their rooms, doors open, awaiting whatever "date" chose to enter.

Cal Tech, she observed, was no U.S.C. during the period called by students "Sadie Hawkins"

time." Her elevator was far from being crowded. Three very young girls in the blue uniforms of Marymount High School, all giggling and twittering over their lark, were riding to the freshman's level. An older platinum blonde with the bored hauteur of a demi-rep had punched the 80th floor button—the topmost level reserved for Nobel Prize winners.

Apartment number 6701 was directly across the rotunda from the elevator. Before she stepped into the music-flooded corridor Lyn saw the door was closed. Already Nils had scored. She might have expected it. He was a native of nearby Covina, blond and handsome, and not every girl shared Lyn's distaste for trite metaphors.

His date introduced complications in Lyn's plan of attack, but she remembered the slogan of the sex hour—two's company; three's a party—and pushed the doorbell. She waited, listening to the beckoning music from the open doors around the circular corridor. A full minute passed before the startled face of Nils appeared at the door window.

"Lyn!"

"How are you, Nils?"

"Well, er, at the moment taking a bath." His voice dropped. "Amal's not hiding here."

"I know it, Nils. I've come to double your pleasure, double your fun."

He smiled at her cliché and his voice rose an octave.

"I'm alone, Lyn. Wait a moment until I slip into a bathrobe."

From the corner of her eyes, she

saw a young man peer from an open doorway farther around the circle. He grew slightly bug-eyed and called loudly to her, "Lyn Oberlin—in the flesh."

She waved and smiled at him, flattered that he should remember her name. It had been months since the Scientists and Models Ball.

Then the whistling began, even from the doorways beyond her vision, drowning the music with luring sibilance, and Nils seemed to be taking an interminable time to towel himself and throw on a robe. Feeling sympathy for all female mynah birds caught in the middle during mating rites, she called over the sound, "Back to your holes, moles. I'm not your earth mother."

Laughter greeted her sally and the whistling was dying when Nils opened the door. Lyn closed the door firmly behind her.

"How are you, Nils?"

"Then you didn't come to see Amal?"

"No. You. When the cat's away the rats may play."

Her words held a Freudian slip. He failed to notice—but Lyn was noticing much. They were standing in the reception alcove and the door to the bedroom on her left was slightly ajar. The bed was mussed and Nils hair was dry. His first thought when he opened the door had been clear and strong enough for her to catch at a glance: *I hope she doesn't ask to use the bathroom.*

"You're sure you don't have a date?" she insisted, knowing that he did—and with surely the

world's most modest girl, one hiding in the bathroom.

"No, I've been working all afternoon." He escorted her into a living room where her feet sank inches into a Persian carpet—handwoven, no doubt. Near the window a long leather sofa, fronted by a massive ebony coffee table and chairs, had been placed to catch the view to the southwest. To the right was a bar. "May I offer you a drink?"

Nils turned to her as he asked and she could tell that his still fragmented thoughts held a high libidinal content. Very good. Her plan was to encourage such expectations.

"Please. Scotch and soda." She strode to the window to look out as he hurried to the bar. "What a lovely view, Nils."

"Yes. On a clear day you can see Catalina."

SHE would build up his hopes, she decided, and when he was keyed to the proper pitch she would snap his string. In the resulting emotional chaos his most guarded thoughts might surface and she would do her best to follow whatever leads he gave her to their source.

She turned as he approached with a tray bearing drinks. "Where do you want me to sit, Nils?"

Flustered, he splashed their drinks slightly as he tried to put down the tray and point to the sofa simultaneously.

"My, what a clumsy Ganymede you are," she chided him. "Give it to me, Nils—the tray."

Smiling sheepishly he handed her the dampened tray and asked, "What's a Ganymede?"

"A Greek god, cupbearer to Zeus."

"Was he something like Apollo?"

"Much more handsome. Apollo was to Ganymede what Loki was to Siegfried."

Indubitably, among the girls who would be attracted to Nils Larsen, many would have compared him to Siegfried. Her allusion should not go unnoticed.

She took the tray to the bar, swabbed it dry with a few deft circles of the bar cloth, letting her movements carry to her thighs. When she turned back he was standing, watching her, his robe loose.

She pointed to the end of the sofa as she handed him a napkin and ordered, "Down, boy. Sit!"

She took her drink to the opposite end of the sofa, sat and arched back luxuriantly into the leather.

"Here's to you and yours," he said, lifting his glass.

She raised hers. He was responding to her body language, but still strangely anxious about the girl in the bathroom. Probably some Cal Tech coed had dropped in and Nils was ashamed of the I.Q. freak, which only proved him as unperceptive as pretentious. It should be obvious to him—from Amal—that she, too, preferred intellectuals.

From sheer gossipy interest she was tempted to probe his thoughts about the girl, but her depth scanning would have to await more serious concerns.

"Did you meet Amal?"

"No. One of your boys from Eugenics Surveillance got there before I did and Amal must have seen him first."

It would have taken no mind-reader to translate the quizzical glance Nils threw at her. It asked an outright question: how did a psychologist learn about the Eugenics Surveillance Agency?

"I never heard of the agency," he said.

He lied with the same skill he served drinks, she thought, remembering the rumpled bed, his dry hair and now his use of the word "agency" which she had avoided.

"I didn't mean yours personally," she said. "I meant the genetics department's agency. Though it does seem strange that your man was there, with members of the LAPD, when no one knew about the meeting but Amal and me—and you."

"He never told me where you were meeting," Nils reminded her. "All he mentioned was 'Moses' country!"

He turned his gaze from her, looking through the window, and she focused on his profile, the lines of his body, catching the perturbations of a mind torn between friendship and a sense of duty. Duty to what, to whom, she wondered, as his first clear thought came to her: *What went wrong at the stakeout?*

After the thought she caught his sense of relief. At least he had a remnant of conscience, she decided, and attacked his guilt feelings.

"But he had told you about Moses earlier—" her voice flooded with anger—"and for a few pieces of silver you sold the man who is risking his life to save yours."

"He won't be killed—"

He saw the anger in her eyes and the sentence continued only in his mind: . . . *by the hunters. When they come for him they will be moving in slow motion . . .*

"His reflexes are too fast," he finished aloud.

"His reflexes failed him once," she said, concentrating on his eyes, "on the seventh lap of the John C. Calhoun Raceway."

Black file date!

SHE caught the thought streaking through his mind on a laser pulse of alarm—and she admired the self-control that allowed him to say calmly, "He never mentioned to me any failure on any race course."

"Come now," she said deliberately, tensing all her receptors and focusing on his thoughts. "Surely you've learned from the black file that Leroy Thatcher was killed."

It was then his control left him. Stupefaction showed on his face. His thoughts shattered, the fragments striking against her in bits and pieces. Some lodged like live coals in her brain.

Where did she learn about the black files? Amal? No . . . some other method . . . telepathy? It must be . . . yes, bioplasmatic receptors . . . parametric waves . . . all indications . . . the cocked head . . . the off-focus eyes . . . but Heywood said the psi experi-

ments failed. There are no mind-readers. Witchcraft, then . . . guard my thoughts. She's staring at me . . . make her look somewhere else . . . her mind's burning me . . .

Lyn, herself shaken, looked away, focusing her attention on a painting of a Saracen knight on the wall behind him.

She had come seeking knowledge only of Amal's origins, and from the mind of this geneticist had rolled secrets pointing to a solution of her own mysteries. Obviously there had been an attempt to breed psychic sensitives and Nils Larsen, aware of such experiments, carried in his mind psychic arcana of which she was unaware. "Bioplasmatic receptors" and "parametric waves" were terms unknown to her, but Nils Larsen evidently had been trained to look for such phenomena.

Walk carefully around this man, her mind cautioned her even as her memory flashed back to the disappointed parapsychologist of her childhood. No doubt the man had been a member of the Eugenics Surveillance Agency and by a ruse she had escaped observation. They believed the "psi experiments had failed—" or so Heywood had told Nils.

The name Heywood stirred in her memory, but she could not place it.

Nils, composed now, was asking, "What did Amal tell you about this Leroy Thatcher?"

Suspicious, sensing the powers of adversary and probably aware that he could guard his thoughts ef-

fectively by such simple stratagems as adding a column of figures in his mind or counting backward, Nils was now taking the offensive. He was seeking less to determine what she knew, she suspected, than to discover how much of her information came from Amal.

"You forget I'm Amal's consulting psychologist," she said. "What he tells me is privileged."

"Then you probably know more about him than I do—so why come to me?"

He was definitely seeking information and it would be pointless to attempt to read his thoughts while his defenses were alerted. Her best chance for breaking through to his knowledge, she realized, would come if she could force him to a crisis of conscience. His guilt feelings might be her greatest ally.

"I've come to let you know that I know you've sold a friend and fellow student for blood money. Of all who know where Amal is, with his hologram being broadcast constantly, the only one who came forward to claim the reward was his doting and obsequious roommate. I imagine your parent is proud of her son."

"Rest your mind on that score," he said, stirring uneasily. "I wouldn't have taken a penny."

INTUITIVELY she knew he spoke the truth.

"Then why did you inform on him?"

"Amal's not what you think, Lyn." He turned to her. "I did what Amal would have done—

voluntarily—if he understood the patterns of his fate as well as I. Lyn, stay away from him. Leave Los Angeles. He's the danger. Not the earthquake. To you and me—to himself—he's everything he seems to be, brave, generous, unselfish. But get out—out of Los Angeles—tonight, while there's time."

"You're gibbering," she snapped.

"I wish to God I were. But I've already told you more than I'm cleared to talk about. I'm sorry, Lyn, but I'm asking you to leave. Please go."

"All right." She stood up. He was weakening. She could still force his conscience to a crisis. She was standing close to the bedroom door and the floor plans of all apartment modules were standard. Through the door and across the bedroom was the bathroom. "All right, I'll leave, you Judas," she said. "But your stench has made me sick. I'm going to throw up."

She whirled and flung open the door, seeing him rise too slowly to stop her. She was across the bedroom, noticing the two beds, one mussed, before Nils could stumble after her, calling "Don't go in there!"

The strained hoarseness in his voice reminded her of a yelping seal. She slammed the bathroom door and clicked the lock.

At first glance the bathroom appeared unoccupied, but a vague shadow behind the opaque plastic of the shower panel revealed Nils' guest's hiding place. Lyn slid back the panel and stood breast-to-

breast with herself standing regally in the shower stall, stark naked except for the pendant watch draped around her neck.

For a moment Lyn was fractured between laughter and indignation, but a few shards of her feelings consisted of outright admiration for the artifact in front of her. The boys of the Daedalus Society might have taken the original's measurements—all of them—with calipers, so exact was the replica.

They've made my lips too full, she thought, nitpicking, and my eyes are a shade too green. . .

"What's your name?" she asked the gynodrone.

Focusing its eyes on the sound of her voice, wetting its lips and answering with a huskiness deeper than her own, it answered, "Lyn Oberlin."

"How dare you use my name, you simpering whore?"

Her shriek was designed to carry through the door to Nils Larsen in the bedroom and she was forced to mute a note of triumph in her squeal. The patterns of Nils' fate had presented her with an opportunity to squash him without resorting to mindreading. She had almost caught him in the act of making love to a plastic replica of herself.

She swept back into the bedroom to find Nils sitting on the edge of the mussed bed, his head in his hands, looking down at the floor.

Standing in front of him, looking down on the top of his head, she lashed him with her voice. "Hiring that gynodrone leaves you

open to invasion-of-privacy charges. After today I'm not above airing your solitary practices in court. What would your girl friend in Covina think of a Romeo who could only score with a plastic dummy? Did Amal know you were renting this thing? Or were you turning him in to get him out of the room? Look at me!"

His ego, completely crushed, had readied him for interrogation. He lifted stricken eyes.

"What do you want from me? Why did you come?"

She asked, "Who's Heywood?"

"The head of the genetics department," he said.

"Is he qualified to tell me about Amal?"

"Yes."

"Where is he?"

"On the seventy-ninth floor."

Behind her she saw a trail littered with missed opportunities. She should have remembered Heywood and his should have been the mind to burn with her questions. Moreover, she should have briefed herself on his background. His residence on the 79th floor indicated that he had been nominated for a Nobel Prize, so he would be listed in *Who's Who*.

"Get your clothes on," she snapped. "Then telephone the head warlock of your coven. Tell him you're bringing Lyn Oberlin up to interview him on Amal Severn. He'll know my name. He's already been snooping around my office. Tell him anything you wish—but you'd better persuade him. Otherwise, lover boy, your plastic sweetheart will become public knowledge."

"Heywood's not what you think he is," Nils muttered, looking again down at the carpet as he stood up.

"I'll draw my own conclusions," she said brusquely.

SHE had used a shameful combination of blackmail and bullying on Nils, she later admitted to herself, and enjoyed every minute of it. As a social psychologist, she knew that students in Nils' category frequently preferred gynodrones over live girls as lesser hazards to concentration—and in retrospect she was more flattered than indignant over finding her replica on campus.

Dr. Heywood lived alone in a double pod, richly but quietly furnished. He greeted them in the entrance alcove with the graciousness of a host receiving guests, saying to Lyn, "I'm truly sorry, Miss Oberlin, that you should arrive at this hour with a male escort."

Superficially he was suave, charming, seemingly gentle. Though slightly built and no taller than Lyn, his air of authority made him seem taller. She noted a sensitive, almost poetic quality to his widely spaced blue eyes whose color matched the tints in his wavy gray hair. Distinguished looking, almost handsome, the formalism of his appearance—his trimmed hair, business suit and white shirt—indicated that he identified with students. His only concession to his fifty-odd years was a flaring Windsor knot in his necktie.

Bowing, he ushered them into

his office, apologizing for his mild witticism. "Of course, I jest. An aging swan can only dream of Ledaean bodies."

His wistful, Yeatsian metaphor alone, comparing her to Leda, would have attracted her and the burden of regret it carried touched her sympathies. In the office he took her chair and arranged it to take full advantage of the view through the window of San Jacinto far to eastward, its snow-capped summit ensalmoned by the late afternoon sunlight. He held her chair until she was seated, a bit of old-fashioned gallantry she found endearing.

"I fell under your spell yesterday, Miss Oberlin," he confessed as he passed behind his mahogany desk to seat himself, "while you watched Red Benton thrash the Gorgeous One in defense of academic freedom. It was then, seeing what beauty and talent had allied itself with Amal, that I decided, reluctantly—and I want to make it very clear that it was reluctantly—to call in outside authority to influence Amal's fate."

"Doctor Heywood, for the second time in this hour I've heard Amal's fate mentioned. What is his fate? What has Leroy Thatcher to do with it and how did the state department get involved in it?"

Heywood threw up his hands in self-defense and peeked from behind them, smiling.

"Gentle woman, please. I'll attempt to answer all questions, but space them. First, Amal's fate."

He lowered his hands to his desk and drummed its polished surface

lightly with manicured nails. He was gathering his thoughts.

"As a psychologist you know that many behaviorists maintain there is no random human behavior, that even an impulse to rise and get a drink of water is predestined, preordained. Shakespeare wrote that our fate is not in the stars but in ourselves. The truth goes deeper. Our fate is not in ourselves but in our genes."

His voice trailed a little sadly into the final admission, but it suddenly changed timbre. He tilted his head upward and his eyes glowed with an inner exaltation.

"Man's fate—the orchestrations of his genes. From life's primal matter we geneticists compose arias, symphonies. Ambulatory Eugenic Experiment Number Seven was to have been our supreme creation in the lyric mode, derived from a motif designed to counterpoint triumphantly the dissonances of the population sink. The theme of Amal Eugene Severn was this—he was to be the prototype of the ideal man for a crowded planet, a short movement rising to an unforgettable climax."

He paused and in the pause Lyn realized a poet was speaking, a master lecturer known in the parlance of students as a "snowman." She leaned forward.

"I have a secret to tell you, Miss Oberlin. . ."

IT WAS good that she had asked three questions before he started. For the next twenty minutes she was mesmerized by his flowing, allusive speech and his facial expression, now intent, now with-

drawn, smiling quickly, quickly serious.

Ambulatory Eugenic Experiment Seven was begun before the Holocaust solved the population problem, he told her.

"Newspapers rationed to four pages because of the declining supply of wood pulp carried stories predicting a ninety-year active life span. More people were living longer, consuming more, contributing less to an age of glutinous sloths blindly procreating. In the year two thousand twenty-four an unidentified U.N. spokesman tendered a *sub rosa* offer to a world congress of geneticists—money would be available for experiments to limit population and increase the supply of contributing inhabitants by morally acceptable means.

"Ah, dear lady, how could human life be made shorter and more fruitful by morally acceptable means?"

"As is not unusual in such matters the geneticists received assistance from an unforeseen source. An actuarial wrote an article in an insurance journal describing ten generations of an English family in which every male died accidentally before the age of twenty-six. The actuarial suggested that the so-called 'death wish' might be inheritable.

"One of our boys ran across the article, took a computer read-out on the actuarial statistics at Hartford and verified the actuarial's hunch. DNA samples were taken of the accident prone, of all who died accidentally while young—suicides, trapeze artists,

racing drivers. Millions of macroholograms were made of the cell tissues. Out of the maze of charts, diagrams and configurations a consistent anomaly arose, a warp in the helix of neural DNA. The Thanatos Syndrome Factor was isolated. Through breeding and by foetal implants we felt we could solve, in a morally acceptable manner, the planet's population crisis.

"We were not playing God but using our intellects. Who is to say what determines good breeding? The Adamases? The Jukes? The Kallikaks? Or shall reasonable, hard-pressed men of good will forfeit the decision to two fumbling teenagers in the rear of an automobile?

"Why continue such an experiment after the Holocaust struck and the need for it had passed, a delightfully intent young woman might ask. Simple inertia. We had to climb Annapurna because it was there, its virginal snowcrest gleaming."

Amal had been well bred for his purpose. He was the product of the ovum of a distinguished poetess who was a suicide at twenty, inseminated by the sperm of a mathematician who had contributed to unified field mathematics before his death in a plane crash, following family tradition, at the age of twenty-three. Amal's forebrain had been further enriched by foetal cloning of Leroy Thatcher's neural tissue in a uterine operation.

The cloning was an error of commission, Heywood admitted: "Leroy's neural DNA was rich

with the Thanatos gene—seven generations of Thatcher males died at the age of twenty-one.”

It seemed that the pre-patterned DNB from the cryogenic corpse cast shadows along Amal's neural paths. Still, the auto racer had added a charming, devil-may-care nonchalance to Amal's personality.

HEWWOOD made the experiment seem so rational, so necessary and so truly humanitarian that Lyn ceased to think of Amal as the man she loved and began to regard him solely as AE 7—Ambulatory Eugenic Experiment Number Seven. She was commiserating with Heywood over the defects hindsight revealed in the experiment when one of his remarks wrenched her back to subjectivity.

“Nature has her own logic which at times defeats us—even defeats nature. Foredoomed to a short lifespan, moved at a faster pace by its higher frequency brain waves, the new species—*homo ultra sapiens*, I suppose we should have called it—was apparently protected by high sexual potency. An unwed Spanish gypsy is bringing suit against the University of Madrid for child support, and a South African black girl is in jail for violation of apartheid. We erred in that our anti-sex conditioning was not strong enough—vasectomies would have been surer.

“But nature erred in the specimens' overkill capabilities. Far from behing the 'ideal man for a crowded planet,' one generation of the species would have depopu-

lated a planet the size of Saturn, leaving only the birds and beetles. So—our Ambulatory Experiment Number Seven will soon be filed with our failures.”

Thrashing out of the snowbank, Lyn asked, “After Amal dies?”

“Not necessarily,” Heywood shook his head. “After we discover if he has been defused or not. I will call on outside authorities only to reapply psychic pressure released when he made his contribution to science. With his host of loyal fellow students—I'm sure there's not another turncoat among them—to guard him and with his quickness of mind and physical reactions, I doubt if he'll be apprehended by the police unless he wishes to be. In that event he'll be placed immediately into another pressure cooker.

“If we can keep his lid on tightly enough, occupy him with surrogate obsessions until his love for you erodes his death wish—I think we all may be safe from his Doomsday Gene.”

“Then you think Amal has a chance to avoid his fate?”

“At least fifty-fifty. We have a young school administrator in Hamburg, Germany, who is happily married and pregnant with twins. You see, Miss Oberlin, we keep a close watch on our subjects. My fear is that Amal will have already set in motion the machinery for riots and destruction when Little Palmdale strikes. But we'll know tomorrow. All AE Sevens die in the cataclysms they create.”

He smiled at Lyn. “After the crisis, I can assure you, a living

Amal will be granted amnesty as a public benefactor. I hope to see you again next Sunday. Even if I'm not invited to the wedding I may slip into a back pew at Dotham Baptist just to see you in your wedding gown."

He arose and extended his hand in farewell. Gratefully she arose and accepted it, saying, "I'll see that you get an invitation, Doctor Heywood, but I have one more question. What happened to Amal's creche mother?"

"Poor lady," he sighed. "She believes her favorite son was killed in a bus crash." His face brightened and he added: "On your honeymoon you might visit her in Iran."

"I have a question, Doctor Heywood." Nils spoke for the first time. "Since Lyn knows about AE Seven, will Amal's genetic card by reclassified from top secret?"

Heywood was vexed. "Of course Lyn will keep our secret. Would any girl tell the boy she loves that he's a pastiche, an artificial man, a thing of bits and patches? Certainly not Lyn. Even if he dies tomorrow she'll not dishonor his memory. After all, we still must consider the Puritan ethic and Lyn is too loyal to spread canards about the boy."

HHEYWOOD was so right, Lyn thought, as they bade the doctor good evening and exited into the corridor.

"What did you think of him?" Nils asked.

"He's overwhelming," she said, thinking: *I shall tell Amal about*

his creche mother on our wedding day...

"I'm beginning to think differently about him myself," Nils said. "This morning he thanked this 'turncoat' for giving him the exact time you were supposed to meet Amal in Dotham, which was already staked out."

"My dad used to be a salesman," Nils continued, as if talking to himself. "He told me how he used to feel after the sales manager gave all the salesmen a pep talk early in the morning. They would go out feeling they could sell a million dollars worth, but as soon as they hit the sidewalk it was the same old street."

A strong note of dissent in Nils' opinion aroused her critical faculties—which, she realized, Heywood's personality had numbed.

"He did seem to be wearing blinders. Something was missing in his arguments."

"Honesty," Nils said, punching the elevator button viciously. And her appreciation of Nils climbed as he continued to mutter. "They lied to Amal. They lied to his creche mother. They conditioned him to fear earthquakes through lies, then manipulated him into coming to a school which practically straddles the San Andreas Fault. In the seismo lab—every time the damned needle wavered Amal bolted for the door. Talk about free will. He has as much control over his fate as a rat has over its maze. He's more conspired against than conspiring."

Still muttering as they stepped into the elevator, Nils said, "I tell

you this—my name may be mud with you, but if the pods fall tomorrow I'll be waiting on the ground with a laser torch to burn Amal's card from the black files and present it to you as a wedding present. It's the only master card. It's microfilmed in Switzerland, but no one could find the film without the number on the card."

"Why not take all the files?"

"What would I do with them?"

She felt she might have a personal interest in the files but didn't wish to tell Nils.

"I don't know," she answered, "but Red Benton would know. May I call him from your apartment. Perhaps we three could have dinner together."

"Do you mean you're willing to return to my apartment?"

She laughed aloud at the incredulity in his voice and confessed, "Of course, Nils. I might even use your bathroom. I wouldn't think of bringing charges against you—unless I catch you running around with some other gynodrone."

Her call reached Red Benton alone in his room. He complained that the allegations of an impending earthquake had ruined Sadie Hawkins. Lyn's invitation to dinner to discuss "an important development concerning Amal" found him eager to accept.

He suggested they meet at the Steak-Out, a restaurant atop the courthouse frequented by policemen. The patrons were people who respected privacy. The Steak-Out also had facilities for projecting Amal's "wanted" hologram live. In the rush of her day Lyn had not

seen the hologram, though it had been shown every hour since noon. Red wanted her to see that even the police were not above editorializing in a five-minute all points bulletin.

THEY met in the lobby of the restaurant and had no trouble finding a table adjacent to the television stage. Off-duty policemen were bored by a hologram most had memorized earlier and which was fading from the platform as the waiter led Lyn's trio to seats.

Still inhibited by his professional attitudes toward secrecy, Nils let Lyn explain the black files to Red and recount in detail her conversation with Dr. Heywood concerning the genetic experiment and the unforeseen destructiveness of the Doomsday Gene. So strong was the charisma Heywood had cast over her thoughts that she found herself justifying AE 7 to the intent lawyer.

Red did not accept Heywood's position.

"What you've outlined," he said, "is a crime against humanity. The governments of Spain, Russia and South Africa are criminally liable before the World Court for connivance in this experiment which, apart from inhuman aspects, constitutes mass murder. More to the point, each government has opened itself to a class action for damages on the part of the dependent survivors of the victims."

He turned to Nils.

"If you're willing to provide me with hard evidence I'll see that it's

used without prejudice to you and to your financial advantage. If any catastrophe results from Amal's behavior—even as a proximate cause—I can bring a class action that will end experimentation with human lives now and forever."

"I'm thinking of Amal," Lyn pointed out. "Both Kley and Heywood assured me that if one pod popped Amal would be granted amnesty. If the earthquake is not severe, could Amal bring counter-conspiracy charges against the government or claim that he was a tool of government policy?"

"Kley and Heywood were quoting the official line from Washington," Red said, shaking his head. "If a killer quake strikes, the city will have unofficially assisted in evacuating the towers and the government will get the credit. If there's only a mild temblor the government has Amal to blame for disrupting the city's activities. He'll never be let off the hook."

"But Heywood sounded so humanitarian. Surely the government would not carry out a vindictive policy?"

Red looked at her as if confounded by her naiveté. "You've become so involved with government you forget its history and traditions. Heywood was giving you a cover story designed to bridge a credibility gap. In a way, you've been honored because on your own, you uncovered a governmental conspiracy. Our stringent anti-conspiracy laws arose from the need of governments to monopolize the practice of conspiracy. Anything marked top

secret is *ipso facto* evidence of governmental conspiracy. Heywood was no doubt authorized by the state department to extend to you the full benefits of an official brainwashing."

Nils spoke up suddenly. "Heywood's avocational job is cosmetician at Forest Lawn. They tell me he has a genius for making a corpse look as if it were alive."

"That follows," Red Benton commented.

Lyn was not interested in their personal comments about Heywood—and in Red Benton she sensed more than a conspirator or a behind-the-scenes manipulator. He had spoken with the cynicism of a revolutionary and she suspected he held a secret contempt for democratic processes. As he turned to Nils to outline a plan for tomorrow she studied his face.

She could not share his belief that the government would deliberately practice malfeasance—but as a malfeasor himself, Red was qualified to know. Even though she saw only his profile, his thoughts were clear and strong enough for her to read. While remaining strictly in the background, he intended to get the black files and make a name for himself as a lawyer, even if it meant talking Nils into burglarizing the genetics department pod if it failed to fall.

It was a two-unit pod, she recalled, on the twentieth floor. Suspended on the Y of a double frame, it would probably hold.

Still, Red had a keen legal mind and a thought prompted her to ask, "Red, what if I should find

Amal and marry him? He would no longer be stateless."

"The marriage would have no retroactive bearing on his prior offenses—but if he should die accidentally tomorrow you could collect benefits as his widow."

"Forget it," Lyn snapped. "I'm no harpy."

Red glanced at her, confused by her refusal of the opportunity. Nils Larsen was equally confused on different grounds.

"What's a harpy?" Nils asked.

"An ill-strung musical instrument," she answered, reading in the flippancy of her remark the symptoms of cultural dislocation. The rapid pace changes were beginning to affect her.

"Here it is, Lyn," Red said as the television stage darkened and the three-dimensional form of Amal Severn appeared. The image cast from lensless photographs, was so real Lyn felt a pang of recognition. The pang dissolved into rising anger. The questions asked by the voice of an offstage genetic detective were obviously slanted.

"Leading questions," Red called them, designed to point up Amal's appeal to hunters.

Amal's answers suggested that he was extremely quick, bold and skilled in the use of camouflage. He could go days without water and could run one hundred meters in ten seconds. He feared nothing but earthquakes—and his pathological fear of quakes had led him to predict a disaster.

"You get their drift?" Red said to her. "Nothing less than a killer quake will set Amal free. On

the hoof, he's worth over half a million dollars to the taxpayers of Los Angeles County in hunting licenses."

Red spoke the truth. Kley and Heywood had lied. She sat dazed, the iconography of her life shattered and the dust from her plaster saints choking her. She could only nibble at the food the waiter brought. Her mouth was too dry. The government she had trusted was a fraud.

ON Red's advice she left the restaurant after dessert. He did not want her involved in any possible conspiracy he and Nils might discuss. But she also knew that he feared she was still loyal to the board of supervisors. He was wrong, but she wished to be alone.

She left, feeling even more upset by Red's motives. He was less concerned with Amal or with righting a social wrong than with the opportunity to bring a class action against the government and win it. His indignation, though genuine, was a cover story to conceal his own ambition. No wonder he planned to enter politics, she thought—he had the talents of a politician.

Whatever his failings, Red Benton held to the integrity of his own thoughts, Lyn admitted, as she drove the Dunemaster onto the Harbor Freeway. In contrast, her mind was like a banjo on which anyone could pluck his tune. She who had been swayed so easily by Heywood's charisma was now equally in vassalage to Red's cynicism.

Attempting to weigh the arguments of both men, she felt the weight of logic was in Red's favor. Contrary to Heywood's implied assertion, Amal was no puppet on strings. For her authority she had Amal himself who—centuries ago, it seemed—had declaimed with such fervor in the Emerson's parlor that he was the captain of his fate.

Heywood had been completely wrong in assuming that for love of Amal she would conceal from him her knowledge of his origins. Heywood erred because he did not know that she was aware that she, too, was a product of human engineering with her dubious gifts of telepathy and precognition. What tie could bind more strongly lover and beloved than a mutual awareness that both were genetic freaks?

After she had parked the Dunemaster and brought down her supplies and pemmican to store in the auto it was her precognition that allowed her at bedtime to drift almost immediately into an untroubled sleep. She knew there would be a major earthquake, that far out in space the circling moon—which would shadow the sun tomorrow—was bringing Amal amnesty.

For in her trance she saw the stanchion fall.

Only one snag roiled the currents of her oncoming sleep. On the edge of somnolence her mind stirred to the memory of the popping sounds so clairauidible in her vision. What were they? She still wondered as she fell into deep slumber.

WEDNESDAY dawned bright and clear, an ill portent for Los Angeles. Lyn rose early to catch the morning news. From her bedroom window she could see the far snow crest of Mount San Jacinto. She could feel the positive ions in the crystalline air drawing taut her skin. The wind was off the high desert. There would be spontaneous fist fights in the parks today, for when the Santa Ana conditions prevailed tempers in Los Angeles grew frayed. Foehns had been used to exonerate murderers in California, and a Santa Ana had been blowing when Los Angeles was burned—both times.

Listening to the news she felt rubber-brained from a mild attack of cultural shock, caused, she assumed, by a delayed reaction to her shift from the quiet of Dotham to the pace of Los Angeles. Amal had not been apprehended during the night, so she decided to put in a full three-hour day before joining him on the Skinhead Reservation after lunch. As she slid into her fabricated buckskin jeans, ankle boots and denim shirt she considered—and decided against, because of the weight—putting something by Rousseau into her backpack to help her understand the noble savages she would be among. By then, the office routine should have stabilized her sense of reality.

All seemed normal at the office when Lyn floated in. Clerks and typists were going about their usual minimal tasks with a maxi-

num of gossip. As usual, Kley arrived twenty minutes late. For the first hour and a half her therapy seemed to be working. By 10:30 she had received seven calls, only two of which she transferred to Kley. The eighth call tossed her senses back into the centrifuge.

Dr. Kiefer, former professor of economics at U.S.C. and presently pastor of the Skinhead Reservation, had urgent and private business with Dr. Kley. Lyn took the call, realizing immediately what the urgent and private business concerned and knowing, too, that Kiefer had called the wrong bureau.

Her mental malaise left her at the sight of his face. When she had been an undergraduate, before the revocation of Kiefer's tenure because of his anti-technology bias, he had been pointed out to her as the last Malthusian economist. He had been young then and his hair had been long and flowing. Now, shorn even of eyebrows, his head resembled a billiard ball. He looked even younger than she remembered him, despite his horn-rimmed glasses whose power of magnification seemed to cantilever his brown eyes.

All this she caught at a glance and focused on his background. He was calling from a booth in what must have been a country store, judging from the jumbled merchandise on the display counters. But the few shoppers she could see were browsing too leisurely to be agricultural workers. Through a window she saw a single auto pass, going too slowly to be on a freeway, so the

store was on a rural road. The headdress of an Indian hanging on a distant wall suddenly clinched the location. Kiefer was calling from the souvenir shop at Old Fort Tejon, just outside the Skinhead Reservation.

Unrestrained by any loyalty to Kley or the government, Lyn lied swiftly from behind her official smile. "If your call concerns the reward for Amal Severn, I'm in charge of temporary disbursements."

Kiefer cast a worried glance behind him. Only his head and shoulders were visible in the view frame, but she could see he wore a sleazy garment and in the V below his neck his chest was bare. No doubt, dressed in a sack cloth robe, barefooted and baldheaded, Kiefer was concerned about his appearance in a public place.

"That's it. I've got your man. Here, on the reservation."

Slowly, officiously, she reached for a note pad and pen, asking, "Does the description fit that of the suspect broadcast from his official hologram?"

"We don't permit television on our reserve. But the one you want, the earthquake nut, is here. He's telling my people where to go, how to stand . . . He's scared stiff."

Lyn tapped her cheek with her pen. No television was permitted on the reserve, likewise no radios. This paragon of Christian anti-technology was a hypocritical Judas with a radio hidden on the reservation.

"You realize, Doctor Kiefer—"

"Brother Kiefer, please."

"We have received hundreds of calls, Brother Kiefer, which must be checked carefully to avoid false arrest suits against the city. Really, your description is rather vague. Literally millions of persons in Los Angeles are at this moment frightened by earthquakes and—"

"But this one calls himself Amal Severn and there's another, a Hal Carpenter—"

"You don't quite seem to understand the problem. For twenty-five thousand dollars—"

"I don't want the money," Kiefer interrupted, obviously anxious to get out of the store and back onto the reservation. "What I want is the equivalent in powdered milk, powdered eggs, medical supplies—"

"Please, Brother Kiefer. Those details will have to be settled after the identification of the suspect is established. Now, I can have someone out there within the hour—"

"Listen, lady. I don't want to get involved. I don't want personally to identify—"

"For heaven's sake, Brother Kiefer, how do you propose to identify the suspect while incognito?"

"You can send someone out to identify him. I want the supplies—that's all."

"Very well, Brother Kiefer, I'll send someone out, but how will we know where to find you?"

Kiefer licked his lips.

"I'll be in my tent, meditating."

"Where is your tent?"

"Come through the Fort Tejon Gate. Go to the pile of boulders on

top of the hill. Cathedral rocks. You can't miss them. Ask Moon Boy, the hermit. He lives there. But I want your word that the supplies will be forthcoming."

"Brother Kiefer, I can promise nothing until identification is proved. Then there will be forms to fill out, affidavits to attest to. There'll be a broker's commission, usually ten per cent, for the purchase of your supplies. You'll have to sign the broker's release. A release will have to be signed absolving the city of responsibility in the event of defective merchandise. Next, of course, there will be requisitions to be signed for the city's trucks since I'm sure you'll not be transporting the merchandise—"

"Madam," he broke in. "I'll put my faith in the Queen of Angels. With her help, get someone out here quickly. Go with God."

He hung up.

FROM his haste, his apprehension, his nervousness, it would have been easy for the most inept social psychologist to recognize in Brother Kiefer advanced symptoms of maladjustment and his manner had struck resonances in her own mind. Suddenly she wondered what was wrong with her—Amal was in peril and she was analyzing Kiefer. A part of her psyche seemed afloat.

Yet her detachment floated above a hard and solid base. She had shielded Amal from his fate for at least another hour and there was more she could do, much more.

Switching on Kley's intercom,

she put a smile in her voice.

"Doctor Kley, my stomach's a little upset. May I be excused for the rest of the day?"

"Certainly, Lyn. In about half an hour I'm going to develop a splitting headache myself."

Leaving the office for the elevator to the garage basement, she recalled that Amal had laughed at her paper on the Skinheads. What she was doing now should demonstrate to him that abstract knowledge had practical value. She knew exactly which roads to take. Oh, yes, she reminded herself, a telegraphic warrant would permit the authorities to follow her onto the reservation. She would have to assume she was being followed and lose her tail.

Dropping in the elevator widened the breach between her thoughts and reality. Vaguely she wondered when this flippancy, this sense of remoteness so characteristic of cultural displacement had begun. Probably when she found her gynodrone in Nils' shower. The sight had split her between laughter and indignation and the rift had not healed.

There were earthquakes in the human mind, she thought. When the stresses grew too great a fault slipped, the personality was shaken and slowly subsided into a new balance of forces. Wheeling the Dunemaster up the ramp, she decided she had been hit by a 4.8 temblor.

She turned on the car radio and focused her attention on the announcer's voice. His thoughts, more coherent than her own, might help to readjust her

thought patterns, or so she hoped.

Earthquake panic had stricken Los Angeles, the announcer said. Orderlies were moving non-ambulatory patients from the hospitals. Thank heaven, Amal was ambulatory. Ambulatory Eugenice Seven, a pretty name. As a result of the panic, the announcer said, supply depots were being set up in the city's parks.

"Some panic," she said aloud, thinking of Red Benton's distaste for editorializing reporters. This particular announcer was not much help in arranging her thoughts into logical patterns. Perhaps all of Los Angeles was in a permanent state of cultural shock.

Thirty new warrants had been issued for the arrest of students charged with varying degrees of conspiracy. Among those named were Wallace Bergner, her floor warden, and Hal Carpenter. Gloria Jaffee, producer of the spectacular *Los Angeles—the Last Day*, had been arrested in New Jersey and was being held. Red Benton had been right in keeping Lyn's name off the list of credits—but Red was always right.

At San Fernando she switched to an inside fast lane and turned from the news to a classical music station. Still pursuing her dreamy self-analysis, she wondered why she had changed stations. Did she fear news from Hamburg, or did she wish to die to appropriate background music when she took the U-turn at Lebec?

In a fit of peevish defiance she

turned to a hop music station and upped the volume on the radio. She would go to her *Götterdämmerung* to the soaring strains of the *Berkeley Bounce*. Yet at the moment she half-wished she had been cloned with the forebrain of Leroy Thatcher. She prided herself on her driving skills but she had never before cut from a guidance band at 300 kilometers per hour to make a U-turn on a busy freeway.

"Well, there's a first time for everything," she said aloud, testing her grip on the steering wheel.

Though her words were self-bantering, her mood whimsical, a serious substratum of her mind was grateful she had planned the U-turn in advance and had chosen her spot with care.

Past Gorman she was climbing toward the Grapevine, and the north-south lanes of the freeway were separating farther for the Lebec turn. At the curve, behind a huge boulder, the median strip was as wide as a football field, though far from as smooth. She would need every millimeter of the width for her turning space.

Five hundred meters ahead, only a few meters north of the San Andreas Fault line, the boulder swung into view. Her euphoria left her. She was alert, concentrating. The closest vehicle trailing her in the inside lane was fifty meters behind. If policemen were in the car they would have no time to react and the next turn-around was Wheeler Ridge, forty kilometers north. No helicopters were overhead. The green upthrusts of the Tehachapis were sweeping down

and past her like waves in a frenzied surf.

GRIPPING the wheel with her left hand, she leaned forward and grasped the demagnetizer switch. She fixed her eyes on the marker. She no longer heard the blast from the radio. The boulder was hurtling toward her. It swooshed abreast of the car.

She cut the switch, gripped the wheel and twisted it to the left. The car, freed from the guidance band, swerved onto the median strip.

The strip was not empty.

Obscured from her view by the boulder, a camera van was parked in the bight of her proposed U. One of Howebrand's camera crews—she had read its planned location in his mind—was setting up to photograph the crashes if a fault slip snapped the guide bands. Her vision, blurred by the speed, jounce and sway of the Dunemaster as it careened over gullies, small boulders and hummocks aided her little in the instant revision of her turning plan as she hurtled toward the van and its clustered crew.

She had gifted the cameramen with an unscheduled rehearsal of the main event, but they were not prepared to accept her once-in-a-lifetime offer. One photographer dove from the trajectory of her car, but the camera he was attending had taken its last picture.

Braking by slewing—Dotham boys called it "revenue's reverse"—she twisted the wheel and spun the car. The Dunemaster missed the van, but its giant wheels graded a tennis court and

mowed a bale of hay before they gripped and shot her forward. She gunned the motor, heading south. On her left she saw the television camera slowly cartwheeling back to Earth.

She was exhilarated. She had knocked the camera forty meters into the air if she had knocked it a meter and she couldn't have chosen a more appropriate first casualty for Amal's earthquake. But her exultation was brief. Before her lay the southbound lanes of the freeway. A two-unit Diesel between her and Lebec was roaring downgrade.

"Oh, fiddle-dee-dee!"

She wasted no time calculating the truck's approach angle—she had solved enough geometry problems for the day. The shortest path across a freeway was at right angles to the traffic. She cut in front of the truck and found a full meter's grace between the Dunemaster's rear and the truck's front. In anger, admiration or awe the truck driver saluted her with a blast from his klaxon.

In thirty seconds her U-turn—modified to a Square Root Symbol turn—was completed and the sibilance of the freeway was fading behind her as the Dunemaster, straddling the San Andreas Fault cleft, waddled in the general direction of Frazier Park. The only casualty was the radio, gone deader than Leroy Thatcher.

My heavens! Is losing one's tail always so delightful?

A half-mile along she wrestled the Dunemaster up a scarp and

trundled onto the rural road to Old Fort Tejon. On the summit to her right towered a pile of boulders—the uppermost boulder, eroded to resemble a Gothic arch, was Cathedral Rock. She swung off the road and up a ravine toward a clump of oaks dense enough to conceal the car from aerial observation. After she parked and got out she looked at her pendant watch. The hour was eleven-thirty—by now Kiefer was back from Old Fort Tejon and had begun his meditation.

Through the boles of the trees she saw the cyclone fence that marked the Skinhead Reservation. Following it, she stayed under the cover of the trees as far as the cover lasted, then ran the remaining hundred meters upslope to the gate and entered.

Through the gate to her left she could see the fresh green of a winter wheat field sloping away to the west. Ahead of her, fifty meters in a straight line, rose Cathedral Rocks. She hurried the remaining distance to the abode of the hermit, Moon Boy.

She heard Moon Boy before she saw him.

A VOICE was issuing from the pile of rocks, chanting a mantra in high, reedy tones. From what she could understand of the words the mantra seemed multilingual for, following the sound, she heard distinctly: "*Nuestra señora, Deus vous benisse, im heilige nomen des Jesu Cristo, Amen.*"

Led by the singsong chant, she rounded the boulders and found

the hermit seated cross-legged in the lotus position of Yogi meditation before a narrow aperture in the rocks. He was swaying gently from the hips in a self-induced trance. His eyes did not change focus as she moved in front of him, shadowing him from the sunlight.

She looked down at him unobserved. His hair was long, glossy and dark. His beard was a neatly trimmed Van Dyke. The beard and flowing hair suggested a Jesus freak, but the spotless white sari wrapped around him reflected an Oriental influence. His religion, she decided, still trying to interpret his mantra, must be Los Angeles eclecticism.

Unseres Vater Der in Himmel Sein, Deliver us from schrecklichkeit und Los Angeles . . .

Maybe not Los Angeles eclecticism. Merely eclectic. It was difficult for her to determine from his chant whether Moon Boy was praising God or damning Los Angeles, but she was not here to write a paper on comparative religion. She snapped her fingers under his nose and his eyes focused.

"*Shalom, shanti* and peace, brother," she said. "Where may I find the Skinheads?"

Moon Boy lifted a long skinny arm and pointed. "Follow yonder path to the eucalyptus grove on the northwest slope of the mountain. Keep to the ravine when the path splits." He looked up at her in mild rebuke and added: "Sister, you have destroyed my satori."

Lyn lifted her watch from

around her neck and stepped aside so the sun's rays would glitter against it. Holding it slightly above the level of his eyes, she swung it slowly from side to side. "Keep your head straight, brother, and follow the movement of the watch with your eyes."

"I can't. Your diamond is blinding me."

She shifted hands, putting her left hand behind her, and continued to swing the watch, coaxing him back into his trance with a soothing, somnolent chant:

*Eins, zwei, four and three,
Back you go to satori
Vishnu, Isis and Vedanta
Lo, you've learned another
mantra.*

She doubted he even heard all of it. His eyes drifted out of focus and his torso was swinging like a metronome. He was no longer chanting.

As she replaced her watch she noticed him sway and wondered if he had reached satori. She was not hip enough in Zen to recognize the symptoms of satori but she hoped he at least might be zazzing a koan.

She turned from him, feeling compassion for all seekers of certainties in Greater Los Angeles and her sadness lingered as she strode down the path. She was not given to snap diagnoses of complicated mental aberrations, but there was little doubt in her mind that Moon Boy was suffering from a cultural displacement worse than a kangaroo's in a tar pit.

Really she had no right to judge the anomalies of others, she chided herself. Here she was, head filled with helium, floating down a path on a life or death mission after a ballbearing-busting turn off a freeway—and she was restraining an impulse to skip along like a school child. Of course, her giddiness could be caused by the elevation—more than 1500 meters—and the bouyancy of the air which, in the eucalyptus grove, was filled with the pungency of lerp. The lerp was doing it, she decided.

The path dropped into a ravine, where she came upon a spring feeding a sizable brook. After stopping for a drink she walked over and embraced the scaly bole of a eucalyptus, trying to anchor her sense of reality on the solidity of the tree, to absorb its “treeness” with her fingertips. Clinging there, it occurred to her that this inner split might have started last evening when Red Benton undermined her faith in the government—the moment of truth had revealed her alleged love for the democratic process as nothing more than the self-justification of a common political group.

For a long moment she stood with her arms around the tree, recognizing in her gesture the physical correlative of Moon Boy’s mantra. She snuggled closer, spreading her breasts on the bole. In the secret places of her heart she wondered—was she a nature worshiper? A Shintoist? A Druid?

“Hell, no,” she answered her

thoughts. “I’m becoming queer for trees.”

She fled from the bole and raced down the path, running due west now—and broke from the grove, stopping at the sight of a young man on the opposite side of a small pool who was flailing a croker-sack on a rock. He was completely naked and hairless even to his pubic area.

“Hi,” she greeted the boy. “Where’s Brother Kiefer and the rest of his shorn lambs?”

“Around the shoulder of the hill. Brother Kiefer’s in his tent, meditating. Some other kook from the Queen of Angels is down there showing them what to do when the earthquake comes . . . Hey, are you on pot?”

“No. Why do you ask?”

“You look like you’re floating.”

She sprinted down the path around the western slope of the mountain onto a broad meadow spotted with cook fires attended by baldheaded men in loincloths. Upslope to her left stood a pyramidal tent that had to be Brother Kiefer’s, its flaps down, its centerpole topped by a Christian Cross. Twenty meters in front of her was a group of women—she could tell by their breasts and babies—dressed in croker-sack robes watching Hal Carpenter hold a stake as Amal drove it with the blunt end of an ax.

BEHIND the group she saw a line of blanket hammocks supported at each corner by stakes. In the thin air she could hear Amal explaining, “Remember, center the baby in the blanket. It

won't be frightened. Babies like to be bounced."

Hal Carpenter saw her first. "Look, Amal! Hairy Lyn."

She ran forward. Dropping the ax, Amal strode to meet her. He wore mottled jeans and a mottled shirt. On his feet were the winter moccasins of the Iroquois.

In his embrace she wept—and it occurred to her that her cultural shock was nothing more than old-fashioned anxiety for a loved one. It was fully a minute before she recovered enough composure to shake hands with Hal Carpenter and to tell him a warrant had been issued for his arrest.

Smiling, he shrugged. "There goes my chance at the Pulitzer Prize in Journalism."

"Wait till you hear what they've done to Amal," she said, but she refrained from saying more because the women were crowding around her to admire her ring, watch, shoes and hair. They looked skeletal.

She saw a longing in their eyes that made her more ill at ease than their questions. They asked how much her diamond was worth and she told them it was priceless. They asked where she got the locket watch—from her grandmother—and if the bottoms of her feet were ticklish. Yes. They wanted to know if her hair was dyed and if lice got in it. No. No.

One woman was deliberately offensive. Tall, blue-eyed, under thirty, her melon-heavy breasts visible under her sleazy robe, she carried a baby, probably an illegal one, on a hip that flared from a wasp-waist. Insolence was in her

British accent when she spoke to Lyn.

"So, you're the bird that's got her 'Reserved' sign on Amal. What have you got that I haven't got?"

"Hair," Lyn answered.

The woman rubbed her head and said, "That's my woman's handicap. I can spot you hipless birds a full head of hair and still beat you in the sleeping bag."

Amal interposed politeness between their hostility.

"Sev Undgren, this is my fiancée, Lyn Oberlin. Sev's from Sweden, Lyn, by way of London."

"Scandinavians should never shave their heads," Lyn said icily.

"Ethnic jokes aren't appreciated here," Sev Undgren said.

"It wasn't a joke. It was advice to the lovelorn. Amal, I must speak to you and Hal privately."

Once more walking hand in hand with her love, her life and the very fount of her romantic frustrations, she climbed the hill to the shade of a scrub oak. The two men sat down in front of her, listening as she described affairs in the city and told them of Kiefer's attempt to betray them for Amal's reward.

She told of Nils' attempted betrayal, of his later conversion, and of what she had learned about the ambulatory eugenic experiment. Without euphoria and the need for haste, she might have been more tactful in describing Amal's genesis but this was no time for sunshine soldiers. Her only concession to his feelings was to edit all references to the catastrophes in Russia, South

Africa and Spain. And she never used the term "Doomsday Gene."

Her words pouring from her had a therapeutic effect. She found her grasp of the seriousness of their situation returning as she talked. Into her summation she managed to inject an attempt to convince Amal that he was in control of his destiny.

"Nothing's final in your fate, Amal. Your genetic recklessness has been held in check by your conditioned drive to learn to predict earthquakes. Now that you're free of the obsession, the geneticists predict your recklessness, your eagerness to take grave risks at impossible odds, may do you in. But no one thinks that's inevitable. If we can get you past your mental letdown you'll be safe. If you take no unnecessary risks right now we can still be married on schedule."

She had said all she could say.

LEANING back on one elbow, chewing a stalk of grass, Amal said, "I wonder where I made my mistake in the Unified Field Theory."

"You made no mistake," Lyn said. "I can assure you there'll be a great earthquake."

He looked at her wonderingly and smiled. "We'll get to Dotham, darling. I've won against odds all my life. There's no reason to change my habits."

Hal Carpenter was more upset than Amal.

"This sort of experiment is illegal. The bureau of scientific ethics has forbidden the use of human beings in experiments.

The ban grew out of the twentieth-century Nuremberg Trials. We're human beings, not guinea pigs."

"Speak for yourself, Hal," Amal said, but Lyn caught no bitterness in his remark, only irony.

"I speak for humanity," Hal said. "We're not the playthings of the tin gods of biological science. With or without a police record—if we can get those black files I'll win a Pulitzer for writing the exposé."

Suddenly eagerness crept into his indignation.

"Amal, I'm sitting on the news story of the decade. You're the central figure in the most heinous crime against humanity since the bloody twentieth century. Give me exclusive rights and we'll split a pot of money. You'll need every dime you can get now they've canceled your green card."

Hal was following Red Benton's pattern, Lyn thought, using Amal for his own ends.

"As a public figure I can't grant exclusive rights," Amal said.

"But you can authorize my story."

"Very well. Consider your exposé authorized," Amal said. "Now, let's visit the loving pastor."

"The hypocritical liar," Lynn exploded.

"Which doesn't reflect on his professional ability," Amal remarked with a tolerance Lyn found hard to understand.

Strangely reluctant, Hal said, "But Brother Kiefer's meditating."

"Rather, he's in his tent listen-

ing to his radio," Lyn said cynically.

"An electronic instrument would violate his creed," Hal said, rising and suddenly eager to go. "If we find it we can threaten him with an exposé to keep him quiet."

"Who would we expose him to?"

"He has an *ad hoc* creed committee of four deacons."

"Get him into the sunlight so I can see his face," Lyn promised, "and I'll find his radio. Ask him outright where it's hidden. He'll be surprised to see me. He doesn't know he called the wrong department for the reward. From this area he should have dialed the Northridge sheriff's office."

"Pity the poor preacher in a bureaucratic maze," Amal said.

Amal was taking his situation too casually, Lyn thought as they walked toward the tent, moving silently to catch the sound of a radio. His self-confidence could be dangerous. She wondered if she should tell him of the Doomsday Gene and its catastrophic side effects. For the sake of others, she knew, he would be more cautious.

They heard no radio.

A short distance from the tent Amal whispered to Hal, still in a jocular vein, "I'll talk. You listen. You might get a footnote for my biography."

Striding to the tent, he pulled aside the flap and called in, "Come out, Keifer."

His three words carried a weight of command that brought Kiefer blinking into the sunlight.

"My son, I was meditating."

"No matter. I've brought a

cheek for Judas to kiss in the presence of a witness from Los Angeles. Unfortunately the witness is a lady."

Kiefer was a small man, barely topping a meter and a half. He grew suddenly smaller as he recognized Lyn. His eyes had a tortured look and his voice held a quaver.

"My son, I've been asking God's grace on your soul and for me—forgiveness."

He was telling the truth, Lyn saw.

"I suppose you can mouth a lot of prayers during the commercial breaks," Amal said. "Where's your radio hidden?"

"I have no concealed radio, my son," he said, thinking: *God forgive me, but technically I'm telling the truth. The radio's in plain sight.*

Lyn reached over and plucked his eyeglasses from his head. She twisted an inset knob on the left temple of the glasses. Faintly but clearly they could hear: "... Angeles asking, is this the way the world ends? A few die-hards are staying in the towers. Will they, if this all proves a fizzle, have the last laugh?"

SHE turned off the radio and handed the glasses back to Kiefer, saying, "Another sin, Brother. Hypocrisy. What will your lambs think of their Judas now?"

"This will ruin my mystique," he muttered, fumbling his glasses back on. "Amal, I wasn't doing this for money, but for medicine for the children, food for my peo-

ple. You have eaten with us. You have seen our problems. I was not asking for the fifty thousand in money—only in supplies for my people.”

“Is that true, Lyn?” Amal asked, his voice suddenly gentle.

“True about the supplies, but the sum agreed on was twenty-five thousand dollars.”

“No,” Brother Kiefer said. “The sum has been doubled by the American Hunters’ Association.”

“Why didn’t you wait until after the earthquake?” Amal asked. His voice held only curiosity now.

“Because I had faith in you, my son. You have prophesied an earthquake and one will come. My people, untutored in the ways of science, would then have believed you chosen of God and would not have permitted the authorities to take you. There would have been bloodshed.”

He turned to Lyn.

“That was why I wished to keep to my tent until you came. My flock would reject me if they knew I had betrayed a friend. It has been a dry spring. Summer will be harsh. They need a leader. And food.”

Amal said gently, “It’s true about the camp, Lyn. The people are close to starvation. The children have whooping cough, measles, hepatitis.”

She listened, sensing the flow of his thoughts and thinking of blood being shed and of Heywood’s prediction. She felt awed by the imminence of fate.

Amal turned back to Brother Kiefer, speaking now with the au-

thority of a general outlining a plan of battle.

“We’ll do it this way, Brother Kiefer. Lyn’s car has a telephone. Hal can bring it through the gates as far as Cathedral Rock—”

“My son, no automobiles are allowed on—”

“I’m sure you can persuade your committee to permit another slight violation of the camp rules. If not, there’s the radio to prove to them no precedent is being broken.”

“Very well, my son.”

“At one-twenty you can call the sheriff’s office at Northridge to report me. I can come on the screen and say that you’ve persuaded me. A few more lies are permissible, aren’t they, Reverend? Then, come what may, you’ll be on record for the reward. If it’s a minor earthquake you can start collecting the supplies immediately.”

“But the hunters—” Lyn interjected.

“They’re part of my plan. I can evade the hunters.”

“If so, you’ll be welcomed back here, my son.”

“No,” Amal shook his head. “We’ll go for broke. I’ll explain my plan to your people at lunch and you can claim the bounty on me twice. The law against double jeopardy applies to stateless persons and after my second escape I’ll be a free man.”

IN THE entire history of the hunting preserve, only one man had managed to escape three times, Lyn remembered. Yet Amal was almost blithely offering to per-

form the impossible on behalf of this wretched collection of social rejects. He was taking unselfishness too far.

In fear, anger and admiration she blurted out, "Amal, I must talk to you alone."

Drawn by the urgency in her voice, he walked aside with her and in their short walk she regained enough composure to make her reluctant to tell him immediately of the Doomsday Gene he carried. She floundered through an introduction which, she hoped, might soften the implications of her explanation.

"Amal, I saw you in a vision, dressed as you are, concealing a longbow and seven arrows on the Angeles Crest Preserve."

"Then you really are psychic," he said, more bemused than amazed.

"You may call it that. Actually I think we're both in the black files—that I, too, am a product of their 'human engineering.'"

"Then, we have even more in common than we thought."

"I cherish what we have in common, but your recklessness frightens me. You're doing exactly what Heywood said you would do, challenge the redhats."

"Does it matter? You've already foreseen a major quake haven't you?"

"In my vision I saw a great earthquake, a cataclysm, but I don't know when it will happen. You were near, but you weren't with me and I was dreadfully concerned."

"That's understandable. I'm chief marshal for the Cal Tech

tower. When the quake strikes I'll be very busy."

"But there's nothing in those visions to assure me the earthquake will strike at the hour you predicted, this month or this year. I saw only a fragment of the future in the trance. Now I have to assume it will happen today and you won't be with me because . . . But enough of this—I don't want you thinking I'm some mystic seer, some freak. I have something more important to tell you."

Then she told him of the Doomsday Gene and of the death and destruction its three other carriers had caused. He heard her out with an intent but poised demeanor she could not have penetrated had his brain waves been normal. Encouraged by his acceptance and his strength, she spoke bluntly of the Mayfly factor, of his overwhelming death wish, of his genetic drive to weave from chance circumstances the strands of his own doom and that of others. The expression in his eyes never changed.

When she finished he stood in thoughtful silence for a moment.

Then: "As Kiefer pointed out, I could cause bloodshed by staying here. On Angeles Crest my bomb could be defused. Possibly the other catastrophes were merely coincidences, though incredible. Still, they're no more incredible than Mrs. Murphy's cow—it kicked over the lamp that burned Chicago. Unless Mrs. Murphy's cow carried a Doomsday Gene. Granted this hokum has a certain validity, I would still be safer on the hunting preserve."

"Amal, I'm selfish. I don't care about anyone but you. You could be killed on the preserve—or murder someone."

"Darling, I'll not be killed by the hunters. And I won't hurt them. Perhaps some will get an arrow in the butt if they get too close." He smiled. "It would be self-defeating to teach a hunter empathy for his quarry by killing him."

He grasped her by the shoulder and tilted her eyes up to meet his.

"Don't weep for me. I have you to live for. True, I hid a non-metallic weapon on the preserve, foreseeing this, but it was put there only for my self-defense in the moral equivalent of war. Forgive me for throwing your words back at you."

"But Heywood predicted this."

"Forget Heywood." His voice went suddenly harsh and he looked beyond her. When his eyes focused again on hers the gentleness returned. "His prediction was based on nothing but logic. The only way I can master my destiny is by responding to logical challenges. Kiefer has unwittingly given me a chance to be of service to his people while I immobilize my Doomsday Gene. So you see, fate can work in my favor. Put your faith in me, not in Heywood's fortune telling. Unless you have a better alternative."

"Kiefer could marry us. We could live on the preserve."

"With dirt, hunger, and disease? Oh, no, Lyn. You deserve more."

He was right. There would be dirt, hunger, disease—and Sev

Undgren swinging those hips toward Amal every time Lyn's back was turned.

Heywood had said that if substitute psychological pressures restrained Amal he might survive the crises. And Nils had said of Amal that no hunter could kill him. Strangely, the geneticists who had brought her life to this impasse offered her the greatest comfort as she watched the currents of Amal's fate converge on their predestined end.

"Whatever you do, Amal, you have my love and support."

He embraced and kissed her in full view of the others—a public show of devotion which, for him, required courage. Now she could think of predestination without fear. Her glimpse of the future had shown her a fragment of a warp and woof weaving itself into a pattern of deliverance for her and Amal.

"We'll be married in Dotham next Sunday," he whispered and for the first time in weeks she felt secure.

"A RELIC for your shrine," Lyn whispered to Moon Boy as she crowded around him to store Amal's emergency kit in the rock crevice. A Skinhead had brought the hermit a bowl of thin barley soup—"lunch" on the reservation—and he had sipped it all without spilling a drop or missing a beat in his metronomic sway. She assumed the police would not search the hermit's cave. Amal's kit contained a pistol—for destroying fear-maddened dogs, he had told her.

She was grateful for the minor task. It gave her an excuse to stay away from her car while Amal, Kiefer and Hal put in the call to Northridge. After Lyn had estimated twenty minutes flying time for the police departments Black Maria they had decided to make the call at 1:20 to give Kiefer time to return to his flock before the quake hit.

Emerging from the cave, she could see Kiefer exit from the car and hurry down the path, indicating that the call had been completed. In the little more than an hour she had spent among the Skinheads she had learned to respect the preacher and to feel compassion for his flock. During lunch she had come to understand Amal's desire to help the people, particularly since they had vehemently protested his decision to give himself up. A majority preferred to risk starvation rather than let him put his life on the line on the hunting preserve. He won his point by assuring them he would have to face the hunters regardless of whether people here profited or not.

Kiefer, who truly detested electronic equipment, had also explained to Lyn that the miniaturized radio was a necessary evil for the survival of the sect, which depended largely on Los Angeles for its supplies. The cult's dogma reflected the adaptability of its leader. For members too simple-minded to grasp the abstractions of religion, Kiefer's nightly sermons were held on the southeast slope of the mountain where the glow from Civic Center

was visible. A few cultists believed the glow was actually the halo from the Queen of Angels, Mary, and Kiefer had not disen-thralled such votaries.

All seekers could find refuge in the sanctuary and were free to share its bounty—unfortunately little more than starvation rations. The hairlessness of cult members held no religious significance—it was a deterrent to the spread of lice. The sackcloth robes and loincloths were worn from economic necessity, not because of any vow of poverty. As Amal remarked privately to Lyn, all that the cult possessed in abundance were love and malnutrition.

Now Amal and Hal were approaching her and Amal called out, "The helicopter will land in the wheatfield, marking on your automobile. We're going to move Moon Boy away from the rocks. They might topple when the quake hits."

"Shall I snap him out of it?"

"No. Let him sway. Hal and I can carry him in scout saddle."

They slid their hands beneath him, interlocked their wrists, hoisted the still-swaying Moon Boy and carried him into the meadow. Lyn followed.

"He's an apostate," Hal told her. "He rejected the Skinheads because Brother Kiefer preaches in English. He thinks many languages make rituals truer and more impressive."

She knew Hal's chatter was for Amal's diversion rather than her own. Both of them could sense Amal's animal fear as he walked

stiff-gaited away from the Moon Boy and looked back at the rocks. He was fighting to control panic.

She decided on instant therapy when he turned to her and asked, "How much more time, Lyn?"

"Four minutes. Don't be so upset, Amal. You know this is a neurotic fear, planted in your mind to encourage you to study seismology."

"Sure, it's all in my mind. Schizophrenia's all in the mind, too. But this fear's based on knowledge. I know what forces are released by an earthquake. One killed my mother."

She was tempted to tell him on the spot that his mother was alive, but that bit of information was to be her wedding gift to him. Besides, her therapy was working. Amal was growing calmer.

"Lyn, this is the position I want you to take," he said, squatting to lean forward on his widespread palms, balancing his hindquarters on the balls of his feet. "A severe shock can rupture you or break a bone."

Obediently she took position, feeling a little foolish—like a grownup playing leapfrog.

"Take your watch off your neck," he said. "It could damage an eye."

She laid the watch before her on the grass and focused on its sweep second hand, saying, "Three minutes."

"Take position, Hal," Amal ordered.

Looking at the second hand moving around the face of the watch put thoughts of the globe in her mind. Far off, above the At-

lantic, the shadow of the moon had been racing toward the Isthmus. Now it was darkening the jungles of Guatemala. She could feel in her mind the vast internal forces of the Earth's shifting and the fluctuation of the planet's magnetic field. An eerie hush lay over the land. Something was growing in the atmosphere, an electricity, a plasma that made her feel playful as a kitten before a storm.

She glanced toward Amal, crouched a body's length away from her, hoping to cheer him with a smile. But she did not smile. His face was drained of blood. His eyes were terror-stricken. She marveled at the power of his phobia. Every line of his body told her he was weathering tornadoes of fear scourging the landscapes of his mind. Yet this was the same man, who had agreed almost happily to offer himself as prey of the hunters, an act she was beginning to understand. The terror he faced from the hunters would be mild compared to the horror he was facing now.

Then it came, a slight shiver of the Earth, a mild rolling shock. A few birds fluttered from a nearby oak, twittered and settled back into the branches.

Amal rose to his feet, grinning sheepishly, and said, "That was it. It's all over."

"But it was an earthquake," Lyn said, "precisely at one thirty-three. At least you've saved face."

"It's not my face I'm worried about anymore. Let's put Moon Boy back, Hal."

As the two replaced the hermit

Lyn walked to the edge of the wheatfield, scanning the sky. Until now she had believed Amal to be all but superman. Vulnerable, error-prone, he was the most human of humans, a little more shy, more brave, more fearful, more compassionate. The geneticists could take pride in their AE 7 if he survived, but nothing was certain anymore. Even her clairvoyant's view of a great earthquake had been as insubstantial as any vision conjured by Prospero.

Nothing was certain but the dot in the sky above the southern mountains. She watched it grow, become audible, then recognizable as the huge black-and-white shape of a Sikorski helicopter, the prisoners' van of the L.A.P.D.

X

AT 1:30 P.M., in Bakersfield, California, an employee of the California Edison Company had left a room housing the control panel that monitored all power stations in San Joaquin-Tehachapi District. He had gone across the hall, ostensibly for a cup of coffee. Actually the technician wished to flirt with a new receptionist, Flora Whitfield, hoping to relieve the tedium of his assignment. The moment Charles Martell stepped from the control room marked the last opportunity for any human agency to control the destructiveness of the Doomsday Gene.

Martell had poured his coffee and was pausing at the receptionist's desk to drop a quarter in-

to the office kitty when Little Palmdale struck.

"Did you feel a quake, Flora?"

"My rose did." She pointed to a gently swaying bud vase holding a long-stemmed rose.

"Some nut in L.A. was prophesying a quake," Martell said, glancing at his watch, "and he hit it on the button—one thirty-three."

"I saw his hologram," Flora said. "He was a handsome boy, young and slender. I heard they issued a license on him."

"The young and slender ones make the best hunting," the technician said. "Did you make this coffee?"

"Yes. Like it?"

"Never tasted better—and I got one of the newest coffee makers at home . . ."

It was fifteen minutes before Martell returned to the control panel across the hall and saw the red light on the panel board. He walked over and jiggled the board, testing to see if the red light had been activated by a short circuit. It continued to glow.

He sat at his desk and called the Tehachapi power distributing facility.

"Bakersfield, Ed. Have you got the steamfitters in mohole three?"

"They're topside, sweating out Little Palmdale."

"I'm getting a critical signal from the pile. You'd better get them back—No, hold it. This thing could have been red for fifteen minutes. Don't risk a crew. Shut off the pile. I'll check with L.A. and get a repair crew."

"Wilco, Bakersfield. Am closing off mohole three."

Martell leaned back, considering the problem. He was confident he was getting a false reading. No pile in any atomic steam-generating plant had ever grown critical. As a sop to the public, the steam plants had been located in tunneled offshoots from the moholes dug long before by geophysicists penetrating the Earth's crust. Theoretically it was almost an impossibility for a pile to grow critical. The cadmium dampening rods which absorbed the atomic radiation operated by gravity if the electromagnet holding them in position failed. If a signal to the magnet malfunctioned and the rods were held out of an overheated pile, the steam channels were voided by the heat and the voided channels themselves acted as dampeners to cool the reactor.

In any event, the matter was academic. Once the blast gate into the feeder tunnel was closed the pile could blow. But the only surface effect from the explosion seven thousand meters below would be a slight change in the purr of an air-conditioner, a flicker in a light bulb, as other generators took over. The Southern California power grid, built before the Holocaust, was designed for twice the population it served.

Martell was not worried.

WHAT the technician did not know was that the subterranean shock from Little Palm-dale had been sufficient to jar loose the laser terminal of the

stress sensor Amal had placed on the Garlock Fault, through which the feeder tunnel was bored. Tilting downward, the pulse from Amal's laser synchronized with the pulsations along the laser beam from the more heavily anchored pile-control laser. The "impossible" chain of events which had occurred in Spain, South Africa, and Russia was taking place in Southern California. Now the laser beam was transmitting to the local control panel a light pulse which the control board was interpreting as: "Lift rods."

Only a week earlier the pile at mohole three had been enriched with a fresh supply of uranium. Moreover, the steam-vent pipes were being replaced in the boiler room. Steamfitters had jury-rigged a fire hose as a temporary vent. The hose snaked through the exit from the generating room into the tunnel. Though swollen from the overload of steam which the lifted rods were generating, the hose was venting the steam harmlessly into the tunnel when the blast gate dropped. The hose was pinched off.

The dropping gate cut the control signal, allowing the cadmium rods to drop back into the pile, but they fell onto a cushion of steam and did not fall far enough to dampen the reaction. Gradually, but inexorably, steam pressure forced the rods back toward the ceiling. The generating room began to fill with live steam. The steam grew superheated and the emissions in the pile stepped up. Live, superheated steam stimulated the emission of radiation

which further heated the steam which stimulated more emissions . . .

On the scale of forces that move the Earth an atomic explosion is a firecracker on a mountainside, but if conditions are right the explosion of a firecracker on a mountain can release an avalanche.

Mohole three was .6 of a kilometer from the Garlock Fault. The Garlock Fault intersects the San Andreas Fault at Frazier Park. Frazier Park is five kilometers from the point on the mountain where the L.A.P.D. Sikorski was preparing to land.

Little Palmdale had hit and was over. Great Frazier was on the way.

GAZING up at the helicopter Lyn thought, *How like a monstrous dragonfly.* . . and turned toward the rocks. Amal had asked her to stay and prepare the supply list for Brother Kiefer. Now she was familiar enough with Amal's *modus operandi* to realize he wanted her to keep busy, to keep her mind off what was happening to him.

The faint, fluttering sound of the helicopter should have been audible to Hal and Amal, but neither was looking skyward, she noticed. She mounted toward Cathedral Rocks. They had put Moon Boy back in front of his cave and were standing beside him, looking down the northeast slope of the mountain.

As she topped the ridge line and looked down her heart fibrillated.

Heywood's prophesy would be fulfilled.

Filtering out of the eucalyptus grove came a skirmish line of Skinheads, resembling an army of cave dwellers in their sack robes and burlap loincloths. They were keeping to a ragged line of battle. In their vanguard marched the roly-poly Kiefer—and swinging beside him was a baldheaded Amazon with unmistakably wide hips bearing aloft the Cross of Jesus.

This was no peaceable demonstration, Lyn saw at a glance. It was an act of defiance so brave, futile and pathetic it brought a mist to Lyn's eyes—the last knights of Christendom had come on a crusade, armed with sticks.

She moved swiftly to Hal and Amal, hearing Hal say, "They look like Neanderthals hunting for mammoth."

With incredible *sang froid* Amal turned to Hal—and was actually chuckling as he spoke: "My lunch-time oratory didn't work. They're not going to let us be taken alive after all."

Here was the possibility Heywood—and now Lyn—feared. There would be an entire squad of riot troopers in the Sikorski and they would be armed with machine guns.

The Skinheads were fifty meters below them. Kiefer turned, marching backward, and lifted his hands high in some cabalistic signal. Then he dropped his hands. When his palms struck his thighs his tattooed battalions, as one voice, broke into the rousing strains of *Onward Christian Soldiers*.

Malnourished, barefooted, weak and diseased, the Skinheads were working themselves into a martial frenzy. Their singing drowned the hum of the helicopter's engines.

Then Amal was racing downhill to say something to Kiefer, walking beside the preacher, gesticulating, bent down, shouting. Kiefer kept shaking his head. Once he shrugged as if to say, *The matter is out of my hands.*

Abreast of the rocks now, they were advancing toward the wheatfield, men in the front ranks, women and children in the rear. Lyn had not known there were so many and she could understand their tactic now. They were denying the landing area to the helicopter, interposing their bodies between it and the wheatfield.

The helicopter was hanging in the sky above them. It dropped and its roar drowned out the song as it circled once, lazily, as if reconnoitering the terrain. It rose a little in the air. The men aboard the vehicle would have seen the weapons and would have gauged the hostility of the crowd.

Below the plateau on which the wheatfield stood, a wedge-shaped peninsula jutted from the edge of the mountain, its narrowest point against the mountainside. On each side of the outjut was a deep ravine—behind it the cliff face fell precipitously to the slope of the mountain. On this spot, cluttered with boulders interspersed with chaparral, the pilot decided to land. He angled slowly onto the ledge, cut his rotors and activated his air jets. For a

moment the helicopter hovered above the area, then settled gently. Its air blasts had cleared its own landing field.

The first skirmish had ended in a clear victory for the technologists, although the police now had over a hundred-meter climb to the wheatfield. They had landed and the helicopter was in an easily defended position.

Amal began to shout to the Skinheads when the rotors fell silent. "Hal and I appreciate your self-sacrifice, but render unto Caesar the things that are Caesar's. Hal and I belong to Caesar. Let us go in peace. There is no danger. Hal will be safe in jail. I will be safe on the hunting preserve.

"I repeat—I will be safe on the hunting preserve. I've never lied to you. I said there would be an earthquake at one thirty-three. It came. What I now tell you is also true: I will be safe on the hunting preserve because I can dodge rifle bullets.

"So, I beg you, get back to the crestline. Don't jeopardize your lives and the sanctity of this reservation to which I shall return after I escape the hunters. Without the sanctuary of your reservation—I will have no hope."

They began moving back—either they believed he could dodge bullets or sensed his desperate need for a sanctuary. Lyn was certain they were not influenced by his arguments in behalf of Caesar.

Then Amal was calling to her, "Go back with them, Lyn, and stand in plain view of the police. They'll not fire into the crowd if they see you."

EVEN as she glowed at his exaggerated estimate of her effectiveness as a deterrent to police violence, she was frightened. Three days ago she would have thought anyone insane who suggested the police would fire into an innocent crowd. That they would do so now was her fear, particularly when she saw the line of blue-coated, black-helmeted men, visors on their helmets, filing across the neck of the promontory and climbing toward the plateau. They were young, hard-faced, eager-looking. Three carried automatic rifles and two were carrying long tubes resembling stovepipes.

When it reached the plateau on which the wheat was planted the squad did not advance uphill but walked along the ledge, spreading into a skirmish line, twelve men plus a lieutenant. The line halted, faced right and stood at attention. Visors were lowered at a barked order. At two hundred meters the line of blues looked formidable.

Amal and Hal herded the Skinheads up the slope. They stopped at the crest, looking down at the officers.

Amal shouted toward the policemen, "Amal Severn and Hal Carpenter are coming down, unarmed. Doctor Kley's secretary is among these people. Hold your fire."

Amal and Hal moved toward the skirmish line. The lieutenant walked alone uphill to meet them. In his right hand he held a pistol, in his left two pairs of handcuffs. At each end of the police line the two officers carrying stovepipes pointed them uphill.

Hal and Amal moved cautiously into the wheatfield, walking as if they feared a sudden movement might precipitate a clash. Impassively the line of policemen waited, their backs to the beginning slope of the mountain. As wary as his adversaries, the lieutenant advanced uphill. They moved ten paces toward each other.

At 1:53 the Tehachapi pile blew. A slight tremor shivered along the Garlock Fault to the San Andreas Intercept. The northeast face of the Garlock Fault had quivered ever so slightly, but enough. Garlock snapped at the San Andreas Intercept.

Great Frazier struck.

THAT part of upper and lower California which for eons had been millimetering away from the mainland toward Asia took, in geological terms, a giant step toward Japan. The first human casualty of Great Frazier was a Los Angeles policeman with a bazooka on his shoulder who, when falling backward, was literally pole-vaulted down the mountain slope and broke his aiming shoulder against a boulder.

For Lyn, there was no ionization of the atmosphere to warn her this one was coming. Her attention was focused on Amal and Hal, looking remote and lonely between the two hostile lines, and the silence over the field was so palpable she could have reached out and touched it. No birds sang.

Suddenly there was sound. To Lyn it seemed as if a thousand jet planes were taxiing across some

hardpan in the sky immediately above her, yet she could hear Amal shrill, "Crawl position, everybody. Crawl position!"

She went to her crawl position, placing her watch in the grass before her, noting the time—1:53. Then the watch began to skitter back and forth across the grass. Her palms had barely touched before the sheer waves merged with the long waves. The Earth heaved. Nearby she heard a limb break from an oak tree and down the line a man screamed, his voice hyphenated by the waves of the Earth until his keening became an ululation, rising and falling.

She heard a woman cry out, "Somebody stop it!"

Nobody was stopping it. Dust was rising out of the grass in a choking pall. Downhill, the rank of policemen was gone, either fallen down the slope or lost to her view in the dust.

Mount Tejon, literally, was dancing. Walpurgis by sunlight, she thought, and the mountain had joined the *valse macabre*, the dance of death.

She felt no panic, no fear, no awe. These emotions would come later. At the moment she felt no more alarm than a kernel of popcorn in a popper. She was solely intent on remaining balanced in her four-limbed stance and, after five minutes of bouncing without being toppled, she was thanking her ballet lessons for her sense of balance. It was becoming a competitive game—she would not let the quake topple her as it was doing to the rocks on the crest.

She wasn't thrown. She was

crabbed into a southwest facing position where she could see the distant white form of Moon Boy, still in his lotus position, bouncing down the northeast gradient from the crest like some spring-propelled toy. On the southeast edge of the rock pile she saw a lesser boulder—hardly more than twice as big as a Dotham house—jiggle from the mass of Cathedral Rocks. It shivered on the edge of the incline—then an Earth convulsion sent it rolling downhill. Suddenly the boulder was gaining speed, rolling, bouncing, hurtling downslope toward the police helicopter one hundred meters below.

She saw the juggernaut arc from an overhang, its trajectory carrying it straight toward the helicopter. But the boulder did not strike the Sikorski. The outjut on which the aircraft sat vanished, taking the helicopter with it. All were gone, aircraft, promontory, boulder, in a three-hundred-foot drop into the canyon. As far as Lyn could detect, the landslide did not add a decibel to the roar from the Earth.

She glanced down toward Hal and Amal, wondering if they had seen the side of the mountain peel away, but both were facing her, both rigid on all four limbs and bouncing downhill toward her—which was strange since she was above them. Within the next five minutes, simply by holding their posture, they were bounced three meters closer to her. While one part of the mountain sank, another part had risen.

It struck her that Amal looked

no more panic-stricken than Hal. In respect to terror they were running a dead heat, when suddenly Hal went up and came down on his side. She heard herself cry, "Tilt!"

Hal was well disciplined. Jouncing on his side, he coiled himself immediately into a fetal ball.

THEN it all stopped. There was silence from the Earth, but around her Lyn could hear the low moans and whimpers of the wounded or panic-stricken. Amal was still crouched on all fours. Hal still coiled.

Her watch had skittered closer. She reached over and picked it up. It read 1:55 and the second hand was moving, but the shaking must have injured its mainspring. She would take it to a jeweler as soon as she returned to Los Angeles. In the distance her Dunemaster appeared undamaged, though it was now headed east instead of south. Then she remembered that Amal's emergency kit was still in the hermit's cave and stood up.

Men had less presence of mind than women, she decided. Amal and Hal were still waiting for the Earth to stop and it had quit shaking ten minutes ago.

She walked toward Cathedral Rocks, weaving among the Skinheads. Some were sitting. Some were crouched. Most were lying coiled on the ground.

"Rise and shine, folks," she called cheerfully. "It's all over."

No one rose and shining would have been difficult in any event. Everyone was covered with a layer of dust. A woman coiled on her side, her hands locked behind

her neck, was calling through her kneecaps, "Praise the Lord!"

Lyn thought it a silly suggestion. The Lord was not a flattery-seeker. The woman was carrying anthropomorphism a bit too far.

In one of those odd quirks which sometimes attend cyclones and other natural disasters, she found that Moon Boy had been bounced twenty meters from his original position and was sitting in his lotus position out on the grass, swaying right and left. For all Moon Boy knew there had never been an earthquake.

The hermit's ignorance was for the best, she decided, for he had lost his cave. Where there had been a crevice in the rocks was now a cleft in a granite brow. Cathedral Rocks no longer deserved the title—the steeple was gone.

She found Amal's backpack where she had left it, partially covered with debris. As she cleared the shards from the kit she could hear coughing and sneezing behind her. The people were beginning to ask about each other.

She retrieved Amal's kit and started back, passing a woman who looked up at her and said, "God has visited His wrath on the L.A.P.D."

A man nearby added: "Yeah, but He didn't do too well by the faithful."

Lyn said to the man, "Hey, you. Get your pals and put Moon Boy back in his place."

"Yes, ma'am," the man said, rising. "Then what do we do?"

"Rally around Moon Boy," she answered promptly.

She strode on down the mea-

dow. The mountain seemed to have righted itself. Hal was sitting up, his elbows on his knees, not doing anything. Amal was still crouched on all fours. She walked up to him, patted his head, hung the kit around his neck and snapped her fingers in front of him, "Up, boy! There's your leash."

He rose to his feet, asking, "What happened?"

"You're the seismologist and you're asking me what happened? We had an earthquake, you idiot! On the Richter scale—a rip-snorter."

"I mean why did it happen? It was supposed to hit at one thirty-three."

"That was the first one," she said. "The second one started at one fifty-three, shook for fifteen minutes and was over at one fifty-five."

Lyn was telling him what she believed. She would never accept the official version that Great Frazier lasted two minutes and eighteen seconds.

"Where are the police?" he asked.

"Smote by God's wrath. Hal, get up."

Everyone seemed eager to obey her commands. Hal leaped to his feet, clapping his hands. "Yep. Got to get over to Cal Tech and dig out the data for my bit story."

"Red Benton's already there," she said, "to seize the black files for his group action at law."

"Forget the black files," Amal said. "We've got to get away before the police recover."

"They'll be grateful to you for prophesying this," Lyn said.

"They won't be and I didn't prophesy this." Eyeing her intently, he added: "I'll drive."

"I'm perfectly capable of driving my own car."

"You're not—and you'll know it later."

Amal had taken over and she grew docile.

THE Dunemaster started and she was glad Amal had the wheel. She wanted to savor the exhilaration she gained from finding herself one of a happy band of brothers who had fought with Harry on St. Crispin's Day. She was still feeling excited as Amal trundled the Dunemaster onto Mirror Lake Road, now a tattered ribbon of asphalt covered at intervals by landslides, but her buoyancy was sinking fast. She was feeling herself collapse inside and her hands were starting to shake.

They rolled finally onto the freeway and turned south toward Los Angeles. For miles downgrade the freeway stretched completely empty and she grew slightly irritated when the forebrain of Leroy Thatcher did not immediately tromp on the gas and head for Cal Tech. Amal was driving like a little old lady from Pasadena, she thought, barely doing thirty when he passed the median strip where she had made a U-turn at 300. Even so, he was slowing down.

"Are we going to park?" she asked as he pulled off the road and swung up the embankment.

He smiled and pointed downhill.

She looked below and could see where a bandsaw had neatly

sliced all freeway lanes—the southern segment was fifteen feet below the northern segment. At the base of the drop-off, which had been invisible from above, she saw her first traffic casualty. The camera truck of the L.A. Spectacular Department formed a crumpled exclamation point at the end of a skid mark on the concrete. It had somersaulted from the drop at high speed and slid on its roof for fifteen meters along the concrete.

Obliquely she recognized that she was malfunctioning mentally, for her first thought was that the cameramen inside had missed two opportunities for some sensational footage of highway action—hers and theirs.

"How did you know the freeway was broken?"

"I didn't. I knew the fault line was there."

"Tell me. Can you really dodge bullets?"

"Of course not. My vision's keen enough to watch a rifleman's trigger finger. When it flexes I leap aside."

She remembered her vision of the falling stanchions and commented, "I told you I could see the stanchions fall."

"You were seeing the wrong earthquake. We were above the epicenter. No towers in the basin fell."

"How do you know we were above the epicenter?"

"The way the *L* waves merged with the *S* waves."

"If you noticed that you must have lost your earthquake phobia."

"It was the last thing I noticed—until you snapped your fingers."

His answers were brusque. The forebrain of Leroy Thatcher was taking over. Amal was concentrating on driving and the roar from the windstream was making conversation difficult. Out of the corner of his mouth he shouted over to Hal, "Get on the Valley State frequency and let me know when we're in range."

"Aye, aye, sir," Hal answered and he wasn't being facetious. He turned to the emergency kit behind him, brought out a walkie-talkie and began to twist its dial, checking from a small book he pulled from his shirt pocket. The book had a list of radio frequencies assigned to the different towers.

An extensive conspiracy had been organized behind her back, Lyn could tell, for even Hal's radio log was printed. It galled her to realize how accurately all others had recognized her so quickly for what she had been, a gullible, over-idealistic political groupy, and had cordoned her off from any active part in the operation. Yet her inner chagrin was not so great that she could not lean back and enjoy the ride at 355 k.p.h., the limit on the speedometer dial.

APPROACHING Sylmar, they had their first view of the San Fernando Valley—a dust cloud hanging in the sky. At the Foot-hill Freeway Interchange the first collapsed overpass emerged from the dust blocking the San Diego Freeway to the south, but Amal

was navigating the Dunemaster with eclat. He angled across the median strip and zoomed off the on-ramp onto the wrong lane of the Foothill Freeway, which at this point had been rippled into corrugations by a disturbance in the Sylmar Fault.

At Sylmar the first metropolitan tower emerged from the dust on their left. From the fifth floor up to the turret restaurant the stanchion stems were completely stripped of modules. Southeast the freeway was stained with red blobs where pods had struck the concrete and bounced into the woods to the south. One crumpled pod was imbedded into the median strip and off to the right another had crushed an oak.

An impression of the awesome force of the earthquake was seeping into Lyn's consciousness. Amal's phobia was the most justifiable mental aberration she had ever encountered—she knew her subconscious was saturated with a fear so strong it was cutting out her recollection of the heaving mountain. In a literal sense, twice over, her recent experiences were only a blur. If she ever sorted out and recalled her memories, she and Amal would have one other thing in common, temblorphobia.

Hal called out, "Valley State's coming through."

"Request them to relay a message to Cal Tech: Nils meet Amal at Charlie-four in ten minutes."

Hal raised Valley State and a young but surprisingly calm voice answered, "Valley State here. Go ahead. Over."

Hal transmitted Amal's request

and was answered, "Wilco. Regards to Amal. Out."

"He's violating procedures," Amal said, obviously irritated by the personal greeting. Amal was slowing. Wrecked and abandoned cars were beginning to spot the freeway.

"Why are you meeting Nils?" Lyn asked.

"He's second in command," Amal said. He was smiling. "He wanted me arrested so he could get my job."

Actually it took them over twenty minutes to reach Cal Tech. More autos and pods from the Eagle Rock Tower were littering the freeway. Several overpasses were down and the bridge over Arroyo Seco was out. As they trundled over the brow of the ravine and down its sides they could pick up the Cal Tech signals loud and clear. So far, Lyn had yet to see a human being, dead or alive, but she knew from transmissions that people were in the woods.

"Morphine at baker-four, urgent . . . Restraint jacket at dog-two . . . German shepherd at easy-six."

Most ominous of all was the call: "Six plastic bags at fox-one."

She dreaded what they would find among the trees as Amal drove south on Lake. Fallen tree limbs lined the avenue. Except for the layer of dust over everything, Pasadena might have been struck by a hurricane.

To the southeast she saw the stanchion at Cal Tech tower lifting to the pleasure dome. It was not as hard hit as the Sylmar Tower. A few residential pods still dangled from their stems on the southwest

and northeast sides of the stanchion, some as high as the 30th floor, she estimated. Farther below, the two-stem administrative pods had mostly held—though staggered away from the stanchion—but gaps were showing as low as the tree line permitted her to see.

Amal angled across the Lake California intersection and drove down a park mall as far as the fallen pods and crushed trees permitted. To her left, at the base of the tower, the pods had fallen into a jumbled mass reaching as high as the fifth floor. The naked grotesqueness of the tower reaching into the rapidly clearing sky, the crumpled pods and crushed trees nearer at hand, sickened her.

She was glad when Amal stopped the car and, with packs on their backs, they could walk away from the scene into the woods toward their rendezvous in the safety zone. Sun shafts through the trees and glinting on dust gave a cathedral atmosphere to the forest and Lyn was beginning to feel at peace until they passed a row of bodies in black plastic bags laid out in an open area by someone with a peculiar passion for order. All the tied ends of the bags were aligned in the same direction and from each hung a large shipping card covered with notations in grease pencil. Lyn turned her eyes away, but noticed Amal ahead of her inspecting each body as he passed, apparently checking to see if the knots were tied properly.

An organization was at work here—and Amal, moving with

the fluidity of an Indian in his moccasins, was the brain behind it. Watching him, she understood his willingness to match himself against the hunters. Without the glint of the pistol in his belt his camouflage would have hidden him from her view at ten paces. If his capture had spared the Earth this horror she could have wished that he had gone to Angeles Crest. More than any other mortal, he was master of his fate—Amal was invincible.

Thoughts of the quick and the dead brought her peace of sorts until, farther into the woods, she saw a Marymount girl, not over fifteen, whose blue uniform was silvered with dust. Aimlessly, endlessly, the little girl was shuffling around the bole of a beech, her head to the ground. She had lifted the front of her skirt to her mouth and was chewing its hem. Spittle drooling from the corners of her lips had drawn two white lines through the dust on her chin and her eyes were wild.

Sensing Lyn's impulse to go to the girl's aid, Amal called back, "Let her be, Lyn. She'll recover. She's lucky. She's out of it."

Amal's words hinted obliquely at his own horror of this disaster.

NILS LARSEN waited for Amal outside a pyramidal tent anchored in the center of four equidistant trees. The two shook hands in formal greeting, not cordially, and Nils led them inside. Near the centerpole, a large plot map of the tower area was spread over a bridge table. In one corner stood a rack containing

four laser torches and beside the rack lay four canvas bags. In another corner a radioman wearing earphones sat on a camp chair before a portable radio transmitter. He did not look up. He was taking notes on a pad.

Amal's first question was, "Who decides the dead are dead before the bodies are bagged?"

"Medical students from Covina. We have only four doctors at the field hospital. They're swamped."

Amal nodded, not in agreement but to indicate he had heard, and asked Nils to brief him on the situation. As Nils spoke Amal listened intently.

Few occupants had returned to the tower after Little Palmdale hit. Some feared the smaller quake was merely a preliminary. Others, caught in the park with supplies, stayed to picnic. Many students were well on their way to getting stoned when the big quake hit. Pot or alcohol had reduced the original fourteen five-man rescue squads to ten, because Nils had refused to issue laser torches to anyone under the influence.

"Where are the rescue squads?" Amal asked.

Nils pointed them out on the map coordinates. At the moment they were working away from the stanchion midway in the northwest and southeast danger areas.

Nils estimated that ten per cent of the student body and twenty per cent of the faculty had remained in the tower and were assumed dead. Side pods, bouncing into the fringes of the safety zone, had killed three persons on the ground. Most of the patients in the field

hospital were serious shock victims.

At one point Nils veered from the objectivity of the briefing with a Severnian metaphor. "On each *L* wave the upper pods were volleying between here and the Pasadena tower. I felt like an ant watching a tennis match."

Some oddities had developed. The main water valve to the tower had been closed, but gravity pressure in the mains was keeping a flow to the park drinking fountains. Electric power was still available and Nils had heard the stanchion elevators were still running.

"Heard?" Amal ejaculated. "Didn't you find out?" Then he waved aside his own question and Nils continued.

There had been some looting. A few students were peddling marijuana and whisky in the park. Medical supplies were running low. A shortage of plastic bags was developing. Red Benton entered the tent, the dust on his face clotted with sweat. Silently he shook hands with Hal, nodded to Lyn and stood listening to Nils.

Amal did not turn to shake hands with Red until Nils had finished. Brushing aside Benton's compliments on his escape from the police, Amal asked abruptly, "Is the elevator operating?"

"To the twentieth floor at least. I was up checking the genetics pod."

"Did you get the black files?" Hal asked.

"Not out of that module." Red shook his head. "Its *Y* stem was bent to the shape of a tuning fork and it's hanging to the last four

meters of stem. When I saw Lyn's Dunemaster coming I came down to get help."

"Forget the black files," Amal said. "No one's going above the tenth floor. One after-jolt and those upper pods will fall." He turned back to Nils. "I'm bringing in the rescue squads to search the modules that held. There may be survivors in them. There are nothing but bodies in the fallen pods."

He went to the radio, turned on the transmitter mike and spoke with calm authority, "Attention, all sectors. This is Amal Severn. Rescue squads report to the command post—on the double. Medicos, use plastic bags only for dismembered bodies. Marshals, seize all supplies of marijuana and whisky and take them to the medical supply depot. Apprehend any besides medicos using hypodermic needles . . ."

AMAL was the general commanding, foreseeing problems and eliciting solutions. Even as she admired him, Lyn wished he were more selfish.

True, an after-shock might jolt some modules loose. On the other hand, the genetics department module might hang for a week, giving the Eugenics Surveillance Agency time to recover and reorganize. That agency's primary mission would be to recover the black files. If it succeeded, if Amal's genetic card were restored to official hands she and he would never know a normal family life. Nor would her child.

Amal had finished with the mike. He turned and tapped the

shoulder of the radio operator.

Galncing up, the radioman recognized Amal, removed his headset and rose.

"What's the situation on the outside, Jerry?"

"Grim, Amal. San Francisco felt it. San Diego was hit badly. Long Beach is gone with Los Angeles."

"Any word from the Bishop Seismological Lab?"

"Yes. There was a ground wave shortly before the Great Frazier jolt. It was pinpointed at Cal Edison's mohole three. Preliminary readouts project back to an atomic explosion in the Tehachapi pile. Something about a modulated laser wave sending incorrect signals to the pile right after Little Palmdale hit."

Lyn glanced at Amal and saw his face turn pale. He turned to Nils and asked suddenly, "Where's Heywood?"

"Dead." Nils shrugged. "His body's somewhere near Pomona. He stayed in his pod."

All of Amal's interest seemed to become focused on the black files he had previously dismissed.

"Where are the secret genetic cards kept?"

"In a tungsten steel combination safe," Nils said, "weighing over a thousand kilograms. Only Heywood had the combination."

"We're going after it and burn it open," Amal said. "There are four of us and the spare rescue apparatus. I'll carry the block and tackle and the gangplank."

"There are five of us," Lyn interjected, "and I can carry the gangplank."

She had watched steeplejacks

install the prefabricated modules on the tower stems and knew the gangplank, a folding board laid to traverse from one stem to another, though immensely strong, was light.

"You stay at the command post," Amal ordered. "It's not safe up there."

"That's why I'm going. To protect you."

The others laughed and Amal was smiling when a youth wearing a hard hat with a grappling line coiled over his shoulder appeared in the entrance of the tent.

"You called in the rescue squads, Amal."

"Yes, Hank," Amal said, stepping outside. "I want you to search the pods on the tower for survivors—from the tenth floor down."

Lyn followed Amal. Other rescue crews were coming from the woods, checking in, and Amal waited for a moment to address them as a group. He completed his instructions on a note of caution. "Stay close to the entrances. If the tower starts to shake run to the corridor circle and hang on."

Dismissed, the crews made for the tower and Amal turned to go back into the tent. Lyn grasped his arm. "Why were you asking about Heywood?"

"I intended to kill him."

"He wasn't personally responsible for AE Seven."

"No, but he knew about me and he did nothing. He could have stopped me a month ago."

"Why should he have stopped you? You've possibly saved a million lives by predicting the quake."

"No," Amal said calmly. "I didn't predict this earthquake. I predicted Little Palmdale. I *caused* this earthquake, by installing a stress sensor on the Garlock Fault. But I'm not morally responsible. Remember that while we're being married on Sunday—if Brother Barnes is still alive."

He had spoken softly, but his intentness revealed his driving urge to clear his conscience of Great Frazier. Despite the death and destruction for which Amal admitted being the agent, Lyn felt a surge of joy, a keen, almost ecstatic and thoroughly selfish wave of happiness. Amal had found a new obsession, the drive to purge himself of his sense of guilt, and he was past the crisis. All other AE 7s had died in the cataclysms they created.

XI

AT SOME point in its ascent the elevator passed above an upper dust level in the atmosphere. Stepping from the lift onto the platform circling the stanchion which had once been the tower's corridor, Amal's quintet looked over the San Gabriel Valley. Dust shimmered to the far green of the Puente Hills. Eastward the skeletal stanchions of Claremont, Pomona, Ontario and far San Bernardino jutted out of a pall as smooth and almost as silvery as a lake of mercury. Above was an incredibly clear sky, but because of the bulge of the dust mantle Lyn could not see Catalina.

Red Benton had prepared her for

her first view of the genetics department's double module. The *L* waves from Great Frazier had sheared its connecting pins and flung it outward. The welded module's twin stems, projecting from the stanchion at different angles, had held in the plasti-steel grooves along its base, but barely. The *V* of the module's stems were bent to an elongated *U*. The pod was being held fourteen meters from the corridor platform on the tips of the two fingerlike extension girders of structural steel. The door of the module, directly between the steel fingers, which were eight meters apart, opened now onto a twenty-floor drop.

It was Lyn's job, as the crew member who carried the gang-plank, to walk one of the *I* beams to the pod, unfold the plank and bridge the extenders so the crew could reach the door between the girders. Positive that Amal would try to stop her from walking the beam, she slipped the backpack from her shoulders, removed the plank and walked onto the girder while the others were still admiring the scenic phenomenon.

Turning, Amal saw her and called, "Don't look down."

But she had already looked.

From below, the module appeared to be low on the stanchion. From above, looking down through the jutting girders, an infinity of emptiness dropped to the next pod, seven floors below. When she moved her gaze slightly outward the infinity was cubed, stretching downward forever to the green grass of eternity. The *I* beam she traversed had been a full

meter wide when she started—it had shrunk to half its original width. Correspondingly, the fourteen meters to the module wall had doubled to twenty-eight.

She silently swore by the ghost of Susan B. Anthony that anything a man could do she could do as well, but the ploy failed her when she recalled that most men could not do this—steplejacks were largely recruited from Mohawk Indians in a tribal enclave near Utica, New York.

So she thought: *Anything a Mohawk Indian can do a woman can do as well . . .*

The fallacy in her premise was so self-evident she had to switch her self-inspirational methods before she could make it to the module wall, where she flipped open the plank and laid it across the beams. As she stooped there to adjust the safety hooks, carefully keeping her eyes to the horizontal, her courage was sustained by a rapidly muttered Lord's Prayer alternated with the Twenty-third Psalm.

Still crouching, clinging to the secured board, she turned gingerly on the beam and stood up, forcing a nonchalant smile to her face as she began her way back to the platform. But no gallery stood there, open-mouthed with admiration, to applaud her feat. Amal had gone to the floor above and was walking the beam over her head, carrying a block and tackle. Hal, not far behind, trailed a line and a cargo net for lifting the safe. Red was attaching a pulley to an eyebolt welded to the stanchion wall. Nils was strolling out on the *I*

beam opposite to hers, cradling the laser rod in his arms. With insufferable indifference to height, they were behaving as if they had been conceived and delivered on the high iron. She reached the platform, vowing never to walk a beam again.

Keeping close to the stanchion, holding the rail of the stairway, she felt there was a lesson in psychology to be learned here. Each of these daredevils was well motivated—Hal had his Pulitzer Prize dream, Red a law career and Amal wanted to assuage his guilt feelings by placing the responsibility for Great Frazier on the geneticists. And Nils wanted to atone for the betrayal of a friend. All that moved her was a mild curiosity about the genesis of her grandmother and the desire to protect a lover who needed no protection. Her motivation was weak.

BEFORE she had justified her cowardice Nils had burned a hole through the door, reached in and swung it open, stepping in, and Amal had hooked the block and tackle to the beam above. Hal was behind Amal on his beam, carrying the cargo net and paying out the towline. She wondered if the two would attempt to maneuver past each other on the same beam—but, no, Amal dropped to the roof of the genetics pod and swung himself down through the doorway.

She heard Nils call to Amal, "We're in luck. Here's a dolly."

Amal reappeared in the doorway and looked up at Hal, stringing the block and tackle and hook-

ing on the cargo net. He started to lower the net and Amal called impatiently, "Throw it."

Hal tossed the net. Amal caught it, began to spread it near the doorway, and Hal, using Amal's short cut, swung down to assist. Lyn gained the impression that Hal was trying to beat Red to the black files to establish a prior claim, because Red was just starting to walk Lyn's beam.

Then all were lost to her view and from the interior she could hear in unison, "Heave! Heave! Heave!" as they tilted the safe onto the dolly.

Nils emerged first from the doorway, nursing his laser torch in his arms. After him came Hal and Red, walking the beams back to the platform. Amal appeared in the doorway, trundling the safe and the dolly onto the cargo net. On the platform now, Nils placed the laser around the bend in the corridor, pointing its pulse end away from the stanchion, and turned to join the other two at the end of the towline.

Amal called from the doorway, "Heave away—"

Still clinging to the stair rail, Lyn acted as observer as the three men hauled away at the line, drawing in the slack. Amal stood by to guide the safe around the door frame because the upper beam from which the hoist hung was offset above the doorway. Then the safe, huge, black, swung free of the pod and the men on the stanchion were hauling away, bringing it as close to the elevator door as the pulley permitted before they let it thump to the platform.

Amal folded the gangplank and had started down the beam toward the platform when the tower began to quiver from an aftershock. He tossed the folded plank into space and leaned forward to grip the edges of the *I* beam. Lyn thought the shear waves were acting strangely for those of an aftershock. The building was continuing to quiver and no long wave had struck.

Amal shouted to her, "Grab the rail, Lyn, and crouch. It's Inglewood—Inglewood—Inglewood."

She crouched. She had long been holding the stair rail. Not understanding what he was shouting about, she looked southwest beyond the Civic Center towers to the stanchion of Inglewood Tower rising above the dust line. The stanchion was so remote and tiny in the distance it was as if she were viewing it through the wrong end of a telescope. As she watched it swayed, righted itself and swayed again. Very slowly, at first, it tilted and she saw it fall.

Her vision from the trance was given a new dimension in reality by her waking knowledge. She understood the meaning of Amal's cry—and more. The Newport-Inglewood Fault had slipped. The Inglewood stanchion astride the fault had fallen. Amal was ten meters out on a bare girder. Inglewood would be a delayed extension of Great Frazier, which had been caused by the explosion in mohole three. An *L* wave was approaching, one as powerful as that which had made the mountain dance—and all AE 7s had died in the cataclysms they created.

SHE could see the first *L* wave coming by a trailing ripple in the atmospheric dust. In front of the wave the striated dust lay silvery in the sunlit air—behind the wave the dust was moiling into dirty grays and browns. Far in advance of the churning air the long wave hit.

A breeze struck her face. The horizon to the south tilted, lifted upward, steadied itself, then swung far below her as a breeze rustled against the nape of her neck. The stanchion creaked. Girders swished. Behind her she heard the safe topple from the dolly. A clunk sounded in the elevator shaft. Then the popping sounds began, followed by metallic clanks she had heard in her trance, and she recognized the sound. Rivets were breaking from the stanchion to roll across the platform and clatter among the girders.

The blur of a pod falling from a higher level plummeted across her line of vision, which was focused on the Civic Center, rising and falling on the southern horizon. The stanchions were standing, though the broken strands of the pedestrian walkway flapped from their sides as they swayed.

She kept her gaze on the central towers. As long as they stood, the tower she rode would stand, for the Civic Center towers were closer to the epicenter.

Time congealed around her. There were no *P* waves to bounce her. The *S* waves were absorbed by the sickening sway of her vast, upside-down swing. No roar came from the Earth—only the hail-

stone rattle of rivets was sounding, the creak of the stanchion, the swish of the girders. She saw only the Civic Center towers rising and falling in the southern horizon.

The sway was lessening. The rivets were popping at a slower tempo. Southward the Civic Center towers were still standing. A final shuddering creak, a final dip to the horizon—and there was silence.

Once she was sure it was over she felt composed and self-possessed. This time her composure was not the euphoria of shock but arose from the calm objectivity of an earthquake veteran. She appraised her situation. Two great earthquakes in one day were really just too much. Now that she had lost Amal she would be free to move, and prudence dictated her withdrawal from the land of shaking Earth. She would leave California, she decided—she had heard some nice things about Phoenix. Rising, she looked over to the girder where Amal had been.

Amal was still there.

BEHIND him reared the slopes of the San Gabriel Mountains slithering with a downfall of dust and rocks. The genetics pod had fallen, shearing the girder barely a meter behind his feet.

She walked to the edge of the platform and called, "It's over, darling."

He did not hear her. The muscles of his forearms bulged beneath his sleeves from the force of his grip on the *I* beam. His eyes were vacant. Strangely, his face

was as clean as if it had been freshly washed and it was chalky white.

"Amal, it's over. Come in."

"He's in shock," Nils Larsen said beside her. "His phobia has him locked in. We could be a thousand miles away."

"I'll unlock him," she said.

Once more she went out on the beam, crawling this time, oblivious to the emptiness beneath her, though now it stretched to the low-ermost pods of the almost completely stripped stanchion.

With her face an arm's length from his, he still did not see her. His gaze was focused on some private hell. Sweat pouring from his face had cleaned it. His knuckles were white from the strain of gripping the *I* beam.

Patting his hand, she spoke in a low, soothing voice. "Darling, it's all over. You've survived the crisis. You're safe now—with me—and I love you. Come back with me. We have the black files. You can lead a normal life now. The experiment is over."

He was still not hearing her.

"Darling, come back to the platform with me," she whispered. "I need you. I'm going to have your child. Your son will need you, too, to teach him to hunt gazelles."

He quivered. Some of her words were getting through to him. She made her strongest move.

"Your mother's alive. She never died in an earthquake. They tricked you into believing it, Amal. They tricked her into thinking you were dead. But she's alive. She wants to see her favorite son. I'll take you to visit her."

Tears formed in his eyes.

She had kept her voice low, partly to soothe Amal and partly to keep the others on the platform from overhearing her. Now from behind her Nils spoke with harsh urgency.

"Get back, Lyn. He'll fall if he comes out of it on the girder. Let me hook a safety line around him. We can hoist him to the platform."

Nils was speaking the truth. Standing, she turned and strode rapidly back to the platform, clearing the beam for Nils who went out, straddled the girder and snaked the safety line under Amal's chest. Hooking its catch, he called over his shoulder, "Haul away."

As the line went taut Nils slapped Amal's wrists and barked, "Let go, Amal."

Obediently Amal released his grip. Nils steadied his body as it rose, swung out over space, and Red and Hal reeled him onto the platform. Red secured the line on the eyebolt and let Amal dangle near the stanchion, head and shoulders sagging, his body convulsing with sobs, his feet dragging the platform. Lyn went to him to swab the perspiration from his forehead.

"Let him hang there for a while and cry it off," Red said. "I've seen forty like him today."

NILS walked up and looked at Amal, saying, "It's a form of battle fatigue. He's got to be the bravest Coptic Christian alive, considering the conditioning the department gave him. He should

have cracked up over Little Palm-dale."

"He damned near did," Hal Carpenter said. "Then he snapped out of Great Frazier ahead of Lyn and me."

Suddenly Lyn was admiring the calm professionalism of the trio, particularly Nils. Quake veterans all, they had sized up the situation calmly and gone about rescuing Amal with efficiency and dispatch.

"I want to thank you all," she said. "Especially you, Nils. If you hadn't stopped me from waking him on the girder we both might have fallen. For this I might even pay your rent on a gynodrone we know."

Neither Hal nor Red, from U.S.C., would have caught her reference to the other Lyn Oberlin on the Cal Tech campus.

"I might have wished for an even more gracious gesture," Nils said. "But if you can bring Amal through this I'll be happy."

"Don't you think he's past his crisis?" she asked, remembering that Nils knew more about the experiment than she.

"I think so. Surely I hope so. I've done some deep thinking—deep for me, that is—since last night. From the records of the other AE Sevens it appears that the Thanatos Factor creates more than a death wish, rather a form of idolatrous necrophilia. Maybe, since they came from the dead, they're loyal to the dead. Even so, there's been enough death today to placate the most blue-blooded Prince of Darkness. And with you on this side of the veil—if he still

craves the other side he deserves any grave he can get."

His tone suddenly turned serious. "You're his best hope, Lyn. Haven't you turned me into a traitor to my department?"

"Nils," Red said, "the elevator's out of order."

"No matter. We'll open the safe up here. You and Hal unhook the cargo net and I'll get the laser."

Lyn turned her attention to Amal. The sweat was no longer pouring from his face. His sobs were subsiding and he was losing his pallor. He was still hanging from the line, his arms dangling, his head drooping. She rubbed his hands and whispered encouragement to him. She saw his knees stiffen, his face contort as he fought for control. He lifted his head. His eyes were coming into focus though they reminded her of those of a sleepwalker suddenly awakened.

Returning with the laser, Nils glanced over and said, "He's coming to."

Amal shuffled to his feet with a visible effort. The line around his chest went slack.

Looking at the safe, Nils wondered aloud, "From what I remember of the design of safes—I'll probably have to burn away the whole front door."

Suddenly Amal spoke, his voice hoarse and indifferent. "Burn a concave hole through the metal around the lock, lift out the lock and then manipulate the bolts by hand."

"Our captain has returned," Nils said. He set about burning a circle at a slant angle around the

lock. The steel hissed as Nils cut his preliminary circle.

AMAL had not fully returned. His hand was clinging to hers in an uncharacteristic gesture of dependence. Below the sound of the laser he asked, "Did I freeze?"

"For a little while. Nils hooked a line under your arms and the other boys pulled you in."

"The remaining pods must have fallen onto the safety zone," he said. "What about the rescue squads I sent to the tower?"

"They had plenty of warning before the long wave hit. I'm sure they're safe."

He nodded vacantly, either in agreement or to show he had heard, and said, "I froze. You must think me a coward."

"Of course not, dear. We all understand your phobia. Nils even complimented you on your bravery. He was surprised that you didn't go into shock at Little Palmdale."

"He should know," Amal said. "He's memorized my genetic code."

A note of bitterness in his remark alarmed her. "Nils saved your life, Amal. He put the rope around you."

"Too bad he didn't bring a genetics department straitjacket."

She was losing her fear for Amal and becoming fearful for Nils. "Darling, don't be bitter. We're getting your black card now. Once it's out of official hands you can lead a normal life."

"As a genetic freak?"

"Hush. You're disturbed. In one

way or the other, we're all genetic freaks."

"But there's only one Prince of the Dead," he said.

He had heard Nils' remark through his coma and remembered it. Yet he seemed resigned in his bitterness, even docile. The rope was still around him and he was making no attempt to remove it. Without disengaging his hand, she reached behind him and unsnapped it, letting it fall. As she fumbled with the catch the laser ceased to hiss.

Wearing a gauntlet, Nils lifted the combination dial and reached inside to manipulate the bolts. He opened the door. From inside he lifted a metal filing case that resembled an oversized safety deposit box and held it aloft.

"Here they are. When the boys from Eugenics Surveillance find the pod they'll find the safe missing. When they find the safe they'll find the files missing. By then the files, minus Amal's card, will be with the U.N.'s Scientific Ethics Bureau. The printouts will be in the hands of our legal beagle and journalistic hawkshaw. After that a former member of the genetics department, Nils Larsen, will be applying for a job as street sweeper in Phoenix, Arizona . . . Counselor, you take charge of the files—you're big and strong. We'll leave everything but the laser for the next residents of Los Angeles."

An air of light-headed gaiety infused the group, with the exception of Amal who was still preoccupied. Red Benton slid the heavy files into the backpack for

the gangplank and hoisted them to his shoulders.

Nils asked Amal, "Think you can make the hike down, old buddy?"

Amal nodded.

It took them twenty minutes to negotiate the winding stairway twenty levels to the ground, stopping once to let Red and Nils rest. Lyn stayed on the outside of Amal, who still held her hand, and she was grateful his eyes were fixed on the steps to avoid the rivets. On a turning in the upper circles she could see clearly that one of the remnant pods had fallen very close to the field hospital. On the ground, she was certain, were new casualties.

At ground level, as they threaded their way between the fallen pods close to the stanchion, through canyons and under arches created by the downfall, she noticed Amal continued to walk with his head down, shuffling, lead-footed. His face and eyes were empty of expression.

Though her mind strongly rejected the simile, it kept occurring to her that he was acting like a zombie. Nils' words repeated itself in her mind: *They were born of the dead . . . they are loyal to the dead.*

BYOND the circle of layered modules the wreckage grew more scattered. Red Benton suggested another rest period. Nils was agreeable—the implement he carried was also heavy. Red slid the pack from his shoulders onto a clear spot in the grass. Nils

squatted, cradling the laser in his arms. Amal continued to stand, holding her hand, still morose.

In an effort to snap him from his lethargy, she said to Nils, "I'd like Amal's card—right now. I want no one reading it."

"Red will need it," Amal muttered.

"He can sue in a U.N. Court on behalf of the others in Europe and Africa."

"She's right, Amal," Red said. "There's no case against the geneticists in the United States since you're not liable for the earthquakes. Both quakes were an act of God."

"The files are alphabetical, Red," Nils said. "Give Lyn his card."

Red lifted the lid and flipped along the index. She judged there were more than a thousand cards in the box. Red found Amal's, plucked it out and handed it to Lyn.

She glanced at it. Except for its black border it resembled the standard buff-colored genetic card, filled with perforations and arcane symbols stamped in magnetic ink.

Turning to Amal, she asked, "Would you like to tear it up, or shall I perform the ritual honors?"

Neither could tear it holding hands and she was diplomatically hoping for a disengagement. His hand had grown cold and clammy.

He didn't look at the card. He flipped his free hand toward the wreckage around them and said, "Why destroy it? It can't restore this."

Nils was obviously concerned

about Amal's continuing depression. He stood up, said sharply, "You're talking drivel, Amal. If it hadn't been for that card there'd be a lot more bodies in and under those pods."

Amal lifted his head, "Wrong, my good and faithful friend . . . What manner of mind would attempt an experiment like this one when there was no need for it?"

He had not truly asked the question of Nils, but Nils answered it.

"You know the scientific mind, Amal. These things develop their own momentum once they start rolling."

"And steam-roller humanity," Amal said.

"You're a scientist," Nils said. "You know the conventions. Humanity's an abstraction. There are only people, Lyn, you, Red, Hal and—lately—me."

"Then why in the hell didn't you stop to think about people?"

AMAL was snapping out of his lethargy. Lyn could sense vast currents of energy stirring in him, swirling around him, as his alertness returned on a wave of anger. His face was growing pale again—the veins on his neck stood out. Amazed and alarmed by his sudden fury, Nils stood and stared at him.

"I'm asking you—geneticist! Why weren't you thinking of Lyn, of me, of the dead around us, three months ago, before I went into mohole three?"

"Mohole three!" Nils seemed stunned by the implication in

Amal's words. He lifted his left hand placatingly. "Hold it, Amal. Don't paint me with the same brush. I came over to your side, remember?"

"You came over a little late for half a million dead," Amal shouted, dropping Lyn's hand and advancing toward Nils. "What were you doing with your knowledge of me, roommate, while we were parsing Arabic sentences?"

Nils backed away. In a wise but unnecessary precaution Hal Carpenter reached over and deftly removed the pistol from Amal's belt. Had Amal intended to harm Nils, Lyn knew, he would have used his fists and Nils would have been pummeled already, but Amal was alert now. He would be aware that of all who had gone on the tower with him, including Lyn, Nils had acted from the least selfish motive.

"Where were you when Madrid blew?" Amal yelled. "Johannesburg caved in? Kiev was poisoned?"

He continued to advance slowly, battering Nils with his questions. Nils, backtracking, kept his distance.

"Where will you be, geneticist, when Hamburg—"

Lyn never saw the broken *I* beam imbedded in the turf until Nils stumbled over it. Falling backward he swung the heavy laser rod out before him with his right hand in an unsuccessful attempt to balance himself, throwing his left hand behind him. When he clutched the rod his finger inserted itself into the trigger guard. The weight of the laser, sliding forward in his hand,

forced the trigger against his finger.

The laser, set to burn through tungsten steel, pulsed.

Lyn saw the bolt of light flash outward and upward to scorch the wall of a pod behind Amal. A bit of charred cloth near Amal's shirt pocket emitted a wisp of smoke.

He had been taking a step when the beam pulsed through him. His knees went slack, balancing his torso as he sank. His body tilted slightly to the left, his left arm dangling outward, his right arm slanting behind him. He crumpled to the ground, his right arm beneath him, his right knee jutting up, his left leg bent under. The vast, dark maelstrom of energy she had sensed swirling around him was suddenly stilled.

She looked down, knowing it was useless to bend to him. Detachedly, in the remnants of phrases he had once read to her, she thought: . . . *here lies my love, the bold and gentle, the quick, the witty, the kind, gone from the mountain, lost to the forest . . .*

The dead had called to him and he had gone—Ambulatory Eugenic Experiment Seven was over. Red could have his genetic card, but later.

She continued to look down for a moment before she went to comfort Nils, considering a clash of metaphors in her mind. Amal did not resemble an eagle looking at the sky—his waxen face, his dark hair, his skewed limbs, his unseeing gray eyes reminded her of nothing more than a puppet whose strings had been cut. ★



FRANK MERRIWELL IN THE WHITE HOUSE

**The first truly machine
candidate, his mission was
to destroy civilization!**

WARD MOORE

ONCE there was a political boss in love with the daughter of a mad scientist. Stevenson Woolsey had no paunch, did not chew cigars (didn't smoke at all, in fact), never wore striped suits or dark glasses, never slapped a back or kissed a baby. He had taken a degree, *cum laude*, from Western Reserve, had read *Finnegans Wake* through twice and understood some of it. At thirty-two he was the sleeping partner in a number of businesses which consistently sold goods or services to the city or county—he was the unquestioned wheel of the Fifth Ward Horace Greeley Club. Four councilmen of the city's nine owed their election to his support—the mayor was his political ally. He had supplied the margin of victory to the sheriff and two of the county supervisors and the three local state legislators consulted Steve before they voted on important bills. He was handsome in a subdued sort of way but he never spoke in public because of a slight stammer.

If Steve Woolsey conformed more to the pattern of the modern political manipulator than the popular stereotype of the wardheeler, Aurelie van Ten Bosch was the quintessential ideal of a mad scien-

tist's daughter. The Eurasian strain introduced into the Bosch family in the eighteenth century—which, suddenly reappearing in Willem van Ten Bosch, gave him a properly sinister expression—made of Aurelie a living doll. She was dainty, exquisite, flawless, charming, graceful. And if she did not inherit her father's genius—make no mistake, he was as brilliant as he was paranoid; mad as a milliner—she was probably smart enough to come in out of the rain before the downpour soaked her through enough to reveal her enticing curves.

"Steve, darling, I could never, just never go for a politician. Besides, I'm not old enough to vote. If you were an outfielder, or even a first baseman—you're tall enough and you've certainly got the reach—" here she firmly removed his hands—"I might be faintly . . . But all those figures and precincts and percentages give me a headache."

"I don't know where b-baseball would b-be without percentages," said Woolsey, feinting a bunt, wistfully aware that you couldn't steal first base.

"Who cares? It's like a ballet—so precise, so cerebral, so fluent. When the batter judges the ball and it soars through that lovely curve and the centerfielder runs back, back, back, up against the fence and leaps into the air . . . Percentages!"

"Just the same it's the percentages that d-decide next year's contracts."

"See what I mean? You're so material. Like no ideals."

"My ideal is to get my boys elected and to hit the b-ball clear through the hole between first and second to s-score."

"And besides, you have no sense of humor and you're just an old tory at heart."

"I'm a liberal p-progressive," cried Steve, outraged. "I've always been for labor, the minorities, civil rights, m-medicare, honest labeling—the whole w-works."

"Just old tory window dressing, like Daddy says. Daddy is making a robot that will destroy all the tory fakery and phoniness—Daddy is a philosophical nihilist—"

"Your Daddy is a philosophical n-nut."

"—because it will do everything perfectly. At bat it will hit only home runs on the first pitch because its vision and coordination will be superhuman—pitching, it will throw nothing but strikes."

"They'll never let him in the game."

"Just what Daddy says. A reactionary plot."

"So what's he wasting his time for?"

"You wouldn't understand. Daddy's an idealist."

SORE and frustrated, Steve pondered the problem of Aurelie. Fortunately he had other problems to act as counter-irritants. The ninth-ward councilman, who had been in office twenty years and firmly believed Earl Warren had been a dangerous radical, was retiring—if Steve could run a successful candidate he would have a majority of the city council in his pocket. However, the ninth ward had been

gerrymandered and regerrymandered until it had become a political enigma. Part of it was silkstocking, with cooperative apartment houses guarded by doormen with stripes down their pants and galloons on their sleeves. Part was unredeemed slum inhabited by blacks. West Indian immigrants and a small but densely populated enclave of Hassidic Jews and shanty Irish. The retiring councilman had been elected and reelected by managing never to offend any of these groups. He had publicly denounced Arabs (there was not one Mussulman in the county, much less the city)—his office sported a mezuzah from Israel and a crucifix blessed by the Pope. He was vociferously against all taxes, whether levied by county, state or federal government.

"We have to put up an all-around liberal," said Steve. "An FDR-Kennedy-Lindsay type. That's the only thing will go over in the ninth."

"Jose Garcia Alvaroes," suggested Appalachia Bethune Lee, who was not only Steve's secretary but a very shrewd member of the Fifth Ward Horace Greeley Club, a lovely girl the color of the finest milk chocolate. To Stevenson Woolsey she was a good right arm—the silly man had no eyes for any woman but Aurelie van Ten Bosch. He was a man of limited insights.

He shook his head. "Jose? No. The blacks won't buy him. The button-down collar set will think he's cute but they're liable to have cramps in the voting booth if they ever get that far. The Irish won't

mind his going to mass but city hall is for keeps. And the Jews—" he shrugged. "Who understands the Jews? They vote for Catholics. But Garcia? I wouldn't put money on it."

Appalachia patiently suggested a number of other names, but Steve wasn't fired by any of them. One was known to have split his ticket at the last election. A second had done time as a peeping tom ("if only it had been embezzlement or armed robbery or even arson," groaned Stevenson Woolsey, "but a peeping tom! He's poison—"). A third had written a novel, a fourth loathed dogs, a fifth was not only a vegetarian but chewed raw wheat instead of gum.

"All right," summed up Appalachia, ticking off the points on her long, slender fingers, "a young man but mature, good-looking but not too, energetic, loyal but able to stand on his own feet, good to his mother but one of the boys, god-fearing but nonsectarian, good speaker but no smoothie. Anything else?"

"Modern. Progressive. Moving with the times. No horse-and-buggy man."

"I pass," said Appalachia, running out of fingers. "Maybe you better get your girl friend's old daddy-o, van Frankenstein, to hurry up with his mechanical man."

"It's an idea," said Woolsey thoughtfully. "It's an idea."

"Oh, you're impossible," exclaimed Appalachia.

WILLEM VAN TEN BOSCH stared through the thick-lensed

glasses, which enlarged his madly glittering eyes into maniacal incandescence. "What?" he bel-lowed, "make my pilot model into a demagogue, a mere vote-getter, tool of an unscrupulous ward-heeler, a prop of decadent democ-racy? Do you think for a moment I would consent to turn my homo-nechal, my ultrabot, my final solu-tion to the human problem—"

"You m-mean it will b-blow up the world?"

The mad scientist sneered. "Blow up the world? Childish prattle. The human race is doomed, but not the world it dis-graces. It is doomed—" here he gave a fiendish chuckle—"to be re-placed by mechanical intelligence, the first truly aristocratic being in the solar system. And you want me to turn him into a mere guzzler in the hog trough, a rooter in the pork barrel?"

"Your metaphors are a little mixed," said Steve coldly. "I hope you realize that in dooming the hu-man race you will be extinguishing your own descendants?"

"Bah!" retorted van Ten Bosch. "Progeny of my daughter, who lacks the intelligence of a first-gen-eration computer, and some be-fuddled numbskull—you or an-other halfwit manipulated by blind biological urge, egged on by the use of cosmetics manufactured from the glands of dead goats and skunks? Do you think a dedicated scientist would be moved by such greeting-card sentimentality? Be-sides, what's in it for me?"

Steve, having already worked this one out, replied promptly, "Any salary he—it—may earn.

Less taxes and upkeep, of course."

"Bah!" repeated the inventor with some lack of originality. "I'd be crazy to settle for such pigeon-feed. Salary! Anyone running for anything spends twice his salary to get elected. I want ninety per cent of the gross."

They haggled for some time, Ten Bosch with the greedy cunning of a madman, Woolsey with the calm assurance of the pure in heart. At length they came to an agreement and the scientist, picking up a mi-crophone, said, "Mr. Watson, come here."

"Is that its name, Mr. Watson?"

Ten Bosch looked at him con-temptuously. "If you weren't such an ignoramus you'd know I was merely quoting an illustrious predecessor."

Steve's disappointment was overwhelming when the mechan-ical man obeyed the summons. He had not expected an android, a fac-simile of a Shriner from Los Ange-les or a Soroptimist from Osceola. Nor did the robot look like the Tin Woodman or Tik-Tok. His feet and hands were articulated with toes and fingers, though with many more than the normal number of joints. If he lacked hips he did so no more than Li'l Abner or any other American ideal and his chest, which no doubt contained the nu-clear power-plant, memory banks and the rest of the electronic fri-cassee, was Princetonian rather than Martian in its bulge. To where the collarbone would have been if robots had collarbones, as Ko-ko might have said, he could be draped in continental slacks and a sports jacket without loss to his

masculine sex appeal. Shoes, of course, and gloves. Clemenceau had always worn gloves and they hadn't hindered his political career. But from the neck up . . .

To begin with, he had no neck. None whatever. No more than an octopus, jellyfish, egg, or a whole salami. But whereas these have a certain organically fluid line which is not inconsonant with Hogarth's curve of beauty, the robot's neckless head was no more than an undersized immovable drum set directly on his shoulders, a drum with five convex bands running uninterruptedly around it, obviously for speech, smell, sight, hearing and some vibrations imperceptible to coarse human senses. Efficient no doubt, but quite incapable of getting more than three votes against, in one long-dead politician's immortal words, a Chinaman running on a laundry ticket.

"Im-im-p-possible," stammered Woolsey.

THE robot turned himself slightly toward the boss. "If I grasp your thought—" the baritone voice was smooth, the enunciation clear, the projection effortless—"you are dismayed that the electorate will automatically reject a candidate with whom they cannot literally see eye to eye. This is something that can be remedied. At present, though not entirely functional, I am constructed for efficiency. The usefulness of my upper works would be reduced approximately nineteen and a half per cent if mounted on a column capable of revolving one hundred and eighty degrees and encased in a flexible

plastic mask indistinguishable from animal flesh and able to stimulate movements of lips, jaw, nostrils and eyes so as to convey appropriate expression."

"Never!" shouted Willem van Ten Bosch. "I would be insane to consent to have my work—my life-work—debased."

"Your consent would be superfluous," said the robot rather pedantically. "On legal grounds (I regret I have been so far unable to pick up much legal knowledge except some oddments Mr. Woolsey seems to have acquired over the years, but I believe Masters & Servants, 2 Edward IV and 5 Henry VII might cover the ground) an agent is bound to regard as valid a contract made on his behalf by his principal. And on pragmatic grounds I remind you of the multiple-choice circuits that make it possible for me to select a reasonable—that is a least inconvenient, most socially acceptable—course of conduct."

The angry scientist gnashed his teeth. "I only installed them to please my stupid daughter. So you could be a perfect ballplayer."

"Ah, well," said the robot philosophically, "to err is human."

"I will destroy you," threatened Ten Bosch furiously.

"How? I perceive you are running through possible means—"

"Can you read m-minds?" asked Woolsey.

"Not precisely. My perception is like that of humans reading the expression on another human's face, only far more penetrating. I receive images that are vividly present in the conscious mind—the more

emotionally projected the clearer they are to me. Thus I perceive pictures of a pistol, a bomb, a garbage truck with shredding machinery, a bessemer furnace, a ship hovering over deep water, myself clamped to a workbench with hacksaws, blowtorches, sledgehammers and pinchbars ripping me into scrap. None of these is practicable."

"You'll see," predicted Ten Bosch darkly.

"I think we had better leave now," suggested the robot. "I am receiving strong images of your being attacked on the evident theory that your demise will void the contract. Perhaps you would be well advised to convey it to an incorporated company."

"You may escape physically," said Ten Bosch, "but you can't get away from your built-in programming. It is true you have multiple choice, but the ultimate outlook that will decide which choice you take is mine. You will always be my creature."

"That remains to be seen," said the robot confidently.

The only refuge Steve could think of was the Fifth Ward Horace Greeley Club. But once locked in the inner office—the backroom behind the backroom—guarded by a squad of cops and four trustworthy club members roused from their beds, he didn't know how to proceed beyond phoning Appalachia Bethune Lee.

"You want me to come down there at this time of night? I mean morning? Oh, Steve, I'm simply thrilled, you lecherous man."

"This is no time for j-joking. I have a serious p-problem."

"Haven't we all? Take a cold shower and think pure thoughts. I'll be there as soon as I can fix myself up to look ravishing."

"Will you be s-serious?"

"No. But I'll be there before you change your mind."

THE security precautions being not yet perfected so as to admit the unwanted and bar friends, Appalachia arrived quickly.

"I'm panting," she said as she came in. "Ooh! What's that?"

"P-possibly our candidate for ninth-ward councilman. Thanks to your impulsive suggestion."

"Always blame the woman."

The robot turned toward her. "I hope, Miss Lee, that you are not prejudiced against fellow beings who happen to be of a different color and facial configuration?"

"We-ell—let's say I'm in favor of faces. Especially for prospective councilmen. Say, what's your name, anyway?"

"Shall I say Four-X?"

"You a Muslim? You won't get ten votes."

"I have at present no denominational affiliation. I gather it is advisable for a candidate to have one. If necessary I could be a Unitarian, like William Howard Taft."

"Twelve votes," amended Appalachia. "Can't you come up with something real cool? Like Clark Gable Roosevelt Kennedy Elvis Dayan Castro?"

"Aurelie used to call me Frank Merriwell. Because I can pitch nothing but strikes, hit nothing but home runs. A literary allusion, I believe, to my prowess."

"Mac, if you're going to be a

councilman lay off the literary allusions—they're poison. Stick to straight pornography."

"N-now see here, Appalachia, this is serious. You put the f-finger on it yourself. If he—..

"Frank Merriwell. How about it? Can't think of anything better except maybe Lincoln Truman Eisenhower."

"Okay. M-Merriwell it is. This is the problem. He has to have a head, a face. Where are we going to get an electronics engineer and a plastic surgeon we can trust?"

"No need," said Frank Merriwell. "I can do it all myself. I have acquired the technical knowledge from my manufacturer—isn't it good Americanism to confess that all wisdom comes from the creator? All I need is some trustworthy help at the critical moment."

Appalachia groaned. "I could see it coming. Just call me Aunt Tammy."

"I shall make a list of the tools and materials needed," Merriwell went on, "and construct a head and neck. Since my movements are not controlled by circuits in my upper works my fingers will remain capable of detaching my present head and reattaching it after I have fitted it into the plastic mask and connected the impulses which will serve in the place of muscles to move the neck, eyes, eyelids and all the rest—"

"Fix it so you can wiggle your ears," suggested Appalachia. "There's something irresistible about a man who can wiggle his ears."

"—but there will be an interval

between disconnection and reconnection when I shall be blind, deaf, speechless and unable to pick up mental images. Miss Lee will therefore have to make a temporary connection in my visual circuit. After that I can do all the rest."

"Lordy, what a responsibility. Aren't you afraid I'll gum up the works?"

"I am programed for normal precaution but not abstract fear."

"All these technicalities are fascinating, but what I want to know is how you stand. Are you a liberal?"

"What is a liberal?" inquired Frank Merriwell.

"Let's not quibble. How do you stand on human rights versus property rights?"

"What is property?"

"P-Proudhon, for God's sake," muttered Steve disgustedly. "Look, let's keep it simple. How do you feel about tax rebates for new industries moving into the city?"

"What industries?" asked Frank Merriwell.

Woolsey, whose vocabulary was usually restrained, uttered a scatological word. "What about public housing?" he demanded roughly.

"On one hand everyone is entitled to a livable home. On the other hand—"

"He's a liberal, all right," said Appalachia.

II

THE nervousness with which she and Steve looked forward to Merriwell's alteration—the robot

himself, having nerves of stainless steel and silver wire, displayed no anxiety—was postponed while the question of his future complexion was decided. At last they settled on the black Irish type—dark blue eyes, ruddy cheeks and a black wig with just a faint waviness. Meanwhile Frank was busy with soldering guns, solenoids, servometers, flexible plastic, paper-thin steel plates and other paraphernalia. The mask he constructed was something of a cross between the young Spencer Tracy and an ageless Jimmy Walker. The actual operation went without a hitch, except for one agonizing moment when Frank's drum head lay inert on the desk being used as a workbench and his fingers fumbled with the wires protruding from where his trachea would have been if he'd had one.

The convex bands had not glowed or reflected, had not showed any variation—yet, lying on the desk where Frank Merriwell had placed the cylinder they circled, they looked extremely and finally dead. It was hard for Steve and Appalachia to remember that Merriwell's sentience was in his torso, that he was not acting reflexively, like a decapitated chicken. Suppose his confidence in the skill he had acquired from Ten Bosch were misplaced and he proved unable to put himself together—or would botch the job so as to be a defective, a metal moron, less a potential councilman than a radio announcer, a postal clerk or an advertising executive?

Appalachia moaned, "That damn diagram looked as simple as

Fun with Dick and Jane. Blue wire with red spots . . . Oh, Steve—"

But at last she found it and its counterpart and put them in Frank Merriwell's left hand and the soldering gun in the right. In no time at all the cylinder had sight again and Merriwell fitted the plastic and metal mask around it. Then he connected the other senses. The eyelids blinked, the ears wiggled, the nostrils dilated, the lips smiled and opened.

"Everything under control," he said.

"But what's the m-matter with your voice? I can hardly hear you."

"Five-sixths of my vocal band is now covered," explained Frank. "I'll have to amplify it. And I'm afraid my extrasensory perception is practically useless."

"The question is, are you f-fit to run for councilman?"

"My friends have been kind enough to say so and while I am reluctant to thrust myself forward as one seeking office, the gross corruption and manifest incompetence of the majority of the present city council force me to overcome my natural preference. At the insistence of those who wish for a thorough housecleaning at city hall I am willing to accept the burden of doing my humble part to bring good government to our great municipality. Civic duty must come before personal inclination."

"He's got the w-words and m-music, but can he put the tune across?"

THE opposition (amid cries of "Carpetbagger—" "Whoever heard of Merriwell?" "A machine

candidate, a charlie mccarthy for Boss Woolsey—"We must have a councilman with a warm human heart that beats for all, not a mere mechanical loudspeaker for a greedy manipulator—") nominated Adolphus Washington Hammer.

"How do you suppose they caught on?" asked Steve.

"Campaign oratory," said Appalachia. "They haven't the foggiest."

Jose Garcia Alvaroes announced that he would run as a progressive independent on the Peoples Freedom Nationalist Equal Rights and Cultural Commonwealth ticket.

Aurelie van Ten Bosch was sitting in the front row when Frank opened his campaign in Carpenters Hall. She looked so entrancing that Woolsey was hard put not to forget politics and scoop her up in his arms and run off with her.

"Pay attention to business," Appalachia hissed in his ear. "Moon on your own time. Our boy is about to sound off and God only knows what he will say."

"That's more than I do."

A spattering of applause vigorously led by Aurelie greeted Frank Merriwell as he strode forward. His black shoes were brilliantly polished. His olive-green suit with natural shoulders fitted perfectly. His white shirt was dazzling. His fawn-and-green bow tie was tied just imperfectly enough to show it wasn't one of those snap-on vulgarities. He bowed, turning his head smoothly to the right and left. He blinked his long-lashed eyes, smiled to show white teeth and spoke in a voice that carried so per-

fectly that even the deaf old gentleman in the last row who had dropped in by mistake heard every word.

"Voters," said Frank Merriwell, "I am opposed to all progress. Thank you."

Gasps of outrage filled the hall as though the audience were composed of geese or muscovy ducks. Steve turned purple. Appalachia turned pale (a becoming *café au lait*). A.W. Hammer turned pink with pleasure. Jose Garcia Alvaroes turned red with repressed oratory. A dowager with the figure of a dress form rose to ask a question, then sat down again. Clearly the magnitude of Merriwell's statement was too enormous to grapple with.

Finally a young man who didn't look old enough to vote called out, "You mean you want everybody to run around naked, live in trees, eat grass?"

"Sir," replied Merriwell, "I am running for councilman, not for a position as regulator of dress and life styles. It is not within the power of the city to regulate dress—the ordinance against nudist camps has, I believe, been declared unconstitutional. Furthermore, it would be a foolish official indeed who attempted to dictate fashion. Besides, going without clothes is impractical, leading to frostbite in temperate zones and dangerous burns in the torrid. Disillusionment with progress is a rational conclusion, not a blanket denial of all history. Let us view things empirically. And please, let us stick to municipal issues."

Some of the tension went out of

the listeners. Obviously Merriwell knew how to hedge as well as any other politician. They didn't have to take what he said seriously.

Someone spoke up. "How about living in trees like monkeys? Nobody's gonna make a monkey outa me."

"Nature cannot be improved upon," replied Merriwell. "Not all monkeys live in trees—if we broaden the term to include apes, some of whom live in caves quite as dark, dank, uncomfortable and verminous as a ninth-ward tenement."

There was some handclapping. Then: "If you tear them down like these urban renewers want and we got to sleep in the park—so why not in the trees? Because when they wreck the old places they either put up projects like penitentiaries where you can't spit without a housing cop giving you a summons or else they build classy coops for the fat cats."

Louder applause. "There seems to be a natural human predilection for arboreal habitations," said Merriwell. "Children build tree-houses at every chance. However it seems to me it would be better and cheaper to make the tenements habitable."

"Ain't that progress?"

"Light, air, cleanness aren't progress—they've always been. Slums, overcrowding, profits for landlords are progress."

"You wanna do away with relief and welfare? Let people starve like in the old days?"

"Welfare and relief are hardly progress. They are palliatives that try to make progress endurable."

Appalachia passed Steve an aspirin.

"It could be worse," she whispered.

"You mean he could come out against s-sex?"

"Mr. Merriwell, aren't you just calling everything you're opposed to 'progress'?"

"If I am it's because progress is what I'm opposed to. I think humanity has confused motion with direction, so that any movement at all has become an end in itself, desirable simply because it is going somewhere—it doesn't matter where. Take sanitation. That's a municipal problem. It isn't for animals or primitive man. But civilized man poisoned the streams he drank from, polluted the air he breathed. So he paid the price in epidemics and plagues for living cozily in towns and cities. Then he paid the price for alleviating the plagues with sewage systems and garbage disposals, which dumped the wastes in the nearest lake, river, or ocean to sicken outlanders instead of homefolks, to kill the fish, birds and game—upsetting the whole ecological balance. Next step in the march of progress—by no means completed—was to treat the raw sewage and make it innocuous. Or so it is claimed. But the same ecological balance that was upset when farmers began plowing the subsoil and burning the weeds—instead of dibbling holes in which to drop seeds—called for manure to restore the fertility of the soil. Progress gave them artificial fertilizers, chemicals that made crops grow like mad but lacked the virtue of those grown

with natural manure, the same natural manure that was being thrown uselessly away. So in a few—very few—communities the nutrient wastes are dehydrated, sacked up and sold to gardeners. Progress. The longest way around is the shortest way home."

"Back to Chic Sale, huh mister? Is that what you want?"

"History is irreversible. No man bathes twice in the same stream. You can't go home. We cannot restore the past, nor would anyone want to, any more than he would want to have his memory erased and reconstructed to fit some idealized notion. Until—if ever—the oversaturated concentration of people can be dissolved and spread out in a more rational pattern, all we can do is make the least damaging compromises, avoiding such progressive solutions as total incineration. What is now an expensive operation to get rid of valuable products can be reorganized so some of the cost can be recovered."

"**W**ELL, now," whispered Appalachia, "you'll have to admit he's in the groove at last. What could be safer or duller? Conservation plus money-saving without cutting payrolls? And nothing warms the voter's heart more than defecation."

"If he hadn't s-started off with that manifesto about being against p-progress I'd say he'd had it made. If he were human I'd call him a screwball—unreliable, a wild-pitch artist. But he's a machine—rational, predictable, logi-

cal. Why drag in p-poison like that?"

"Catch their attention?" suggested Appalachia. "Set them up so they'll listen."

"You know b-better than that. I wrote him a good speech, tried to c-coach him—delivery, g-gestures, everything—tutored him carefully on not saying too much, committing himself, leaving himself wide open. I really thought I'd gotten across to him, but he's evidently a m-maverick. I wonder if we could deal with Garcia?"

"What would it get you? The Tin Woodman could come in, but Jose can never do better than place. Honey, you're all shook up for the moment but there's no irrevocable damage done. Chew him out till his transistors are all jelly but don't throw him overboard. There are going to be other elections and some voters have memories. He hasn't really alienated anybody with his against-all-progress line—"

"Y-yet."

"—and his cracks about the slums didn't hurt him. Everyone's against slums."

The race for councilman wasn't important enough for anyone to take a straw vote, but Stevenson Woolsey's antennae told him that Merriwell and A.W. Hammer were running neck and neck with Jose Garcia Alvaroes far behind. Except for an editorial sneer or two at Merriwell's name and slogan, the press ignored him. As might have been expected, both Alvaroes and Hammer concentrated their fire on him, disregarding each other. But while Jose denounced

Merriwell almost impersonally as an imperialist tool, the voice of the exploiters of oppressed colonial peoples, Hammer's attacks were in the fine old American tradition of personal vituperation—except that he lacked the vocabulary. "The machine can't date," he roared, "is against progress. You know what this means, ladies? No more nylons, no more girdles, no more washing machines, no more telephones, radios, television. No more votes for women! How do you like that? Back to the scrub-boards, woodstoves, flatirons, tallow candles, washboilers, high-button shoes—and you won't be allowed to say a thing about it. That'll be for your lords and masters, just like it was in the good old days before there was progress. The men'll do the voting and you'll do the drudgery. No vacuum cleaners, no frozen foods, no toasters, no percolators, no instant coffee, no beauty parlors—no lipsticks even . . . Ladies, I say to you, the can't date who'd propose such things is a monster in human form, a dupe of the communists if not a card-carrying communist himself, a tearer-down of the American way of life, a man unfit to breathe the pure air of our country and our century . . ."

"That'll give our boy the epicure vote, the eggheads and maybe all those who'd rather fight than switch. If there just weren't any women in the ninth ward . . . I suppose we can live with Hammer—wasn't he mixed up in some pinball deal?"

Frank Merriwell's reply was short, direct and dignified. "I am

not now nor have I ever been a communist. Communism represents the ultimate in progress—the deification of science, the absolute rule of bureaucracy, 'government by experts,' the final stultification of free will. The charge that I would repeal the Nineteenth Amendment is as absurd as the amendment itself was superfluous. All citizens are enfranchised and always have been. The word 'men' in the Declaration of Independence has common gender and applies equally to women, as the nineteenth-century feminists insisted. I do not feel that nylons or flatirons are an issue in this election. Whatever the aesthetic objection to girdles, I propose no restraint on their confinement. As for the pure air, I am in favor of it, free of carbon monoxide and strontium ninety as well as campaign speeches."

ON ELECTION day Steve and Appalachia checked the registration lists against the reports of voting which were continuously phoned in. Late morning the volunteer baby-sitters and those who offered free transportation to the polls shifted from a haphazard basis of waiting to be called for to methodical visits to those who had not yet voted. Lesser members of the Horace Greeley Club advised poll watchers and precinct captains of what to do where routine instructions for dealing with challenges and other problems were inadequate.

In the eighteenth, nineteenth, twentieth and twenty-first precincts the voting was running ahead of normal expectation for an off-year,

minor election. In the twenty-second it was average. In the twenty-third and twenty-fourth it was light. The first three were the slum districts, the twenty-first and twenty-second were the Hassidic neighborhood—the rest was silkstocking.

"Looks pretty good," commented Appalachia.

"Under ordinary circumstances," conceded Woolsey. "But who can figure this one? I particularly don't like the pattern of the Jewish vote. Are they sitting on their hands in the twenty-second? Or are they going to clobber us after work?"

"Morning votes are 'no' votes," she reminded him.

"Sure, but who are they saying no to? Take it for granted they're saying no to Hammer, but who are they negatively for? Garcia?"

"Not a chance," said Appalachia bravely.

The early-afternoon lull seemed ominously long. At any other time a pro like Steve would have known the results by now, even though not a vote had been counted and the polls would be open for another five hours. But there were too many unknown quantities in this occasion. The subtle projection of Merriwell's non-human personality—was it or wasn't it unconsciously perceived with or without hostility?—the size of Jose's protest vote, the depth of middle-class interest. Like the eminent amateur characterized by Harry Truman as knowing "no more about politics than a pig does of Sunday," he had to wait for the first returns.

Perhaps not quite. "They're pil-

ing up in the twenty-second precinct—looks like there'll be a line when the polls close. Twenty-third and twenty-fourth are normal."

Steve and Appalachia looked at each other, allowed themselves the faintest of cheerful smiles.

"If not the world, at least the ninth ward. Apparently," she added, careful to avoid hubris.

The first returns were incomplete, in fact they were nothing more than the first bakers' dozen ballots counted in one of the two silkstocking precincts. "Merriwell five, Hammer five, Alvaroes three."

"Fluke," said Steve. "Some family of nuts all voted together." He also sidestepped hubris.

"Well, how's this from the eighteenth? Hammer six, Alvaroes seven. Merriwell fifteen . . ."

Steve sighed. "We're in."

Frank Merriwell not only carried the slum and Hassidic precincts by majorities—Jose Garcia Alvaroes ran ahead of Hammer where there was a threat of urban renewal—but was barely edged by Hammer in the wealthier neighborhoods. Steve didn't wait for Hammer's concession to have a serious talk with Frank Merriwell.

"Well, Councilman," he began.

III

WOOLSEY shared with Napoleon and Joseph Pulitzer the ability to simulate rage while remaining perfectly calm. "Listen, you refugee from Smith and T-Tinker," he snarled. "You collection of electronic junk. You think you're riding pretty high right now,

d-don't you? You know what's lower than a councilman? Only the g-gastric growlings of an amoeba bucking for undersecretary to a minor worm, that's what. And do you know how you got to this unexalted position? By your own efforts? By the weight of your thinking, the length of your political foresight, the sharpness of your wit, the power of your oratory? Not a bit. We m-made you, the organization and I, with the sort of w-work that wins elections—and we can un-make you the second you stop being regular."

"Steve!" cried Aurelie van Ten Bosch, "how can you rave and rant this way at Frank? And all for nothing. I do believe you're jealous because he won the election."

"Oh, Aurelie," exclaimed Steve in anguish. "How can you think I'd be jealous of a m-machine?"

"Don't be gruesome," said Aurelie. "Besides, it's a low form of bigotry to belittle Frank for the way he was born—uh—manufactured."

"Name a high form of bigotry. Oh, Aurelie, do we have to quarrel?"

"Yes, we do, because we don't agree on anything. I keep telling you and telling you—we're not compatible."

By the end of his term as councilman Frank Merriwell had cut the heart out of the local urban renewal program. This was done not by one speech or vote but by his methodical chipping away at the figures during budget sessions. His lightning calculations exposed the inflated sums before the councilmen got through reading them and

his cold logic impressed the other members. When Frank rapped his gloved steel hand for emphasis and insisted that this or that old building deserved better than the steel ball and bulldozer he was heard respectfully. When he charged them with acting mechanically out of a mindless fascination with the idea of a city full of indistinguishable boxes made to house indistinguishable tenants they nodded. In the end architectural renderings already paid for were scrapped and federal money already allocated was withheld.

At the Horace Greeley Club, Appalachia said, "Isn't it time you gave some thought to where it will all lead, Steve?"

"There are only two places it could lead to, Congress or the state senate. I haven't d-decided which."

Appalachia placed herself between her boss and the window, so that his view of the airshaft and the inside window box where he grew African violets was complicated by her interesting silhouette. "Time's not standing still," she reminded him. "We're not—I mean Frank's not getting any younger."

"Thinking of obsolescence? What if the opposition comes out with a new model?" He looked at her thoughtfully. "No one but van Ten Bosch could make one, but suppose he decided to try—just for spite? I must see Aurelie about this."

Aurelie said, "You don't understand Daddy at all. He's mad, you know."

"No k-kid?" muttered Steve.

"I mean he's mad on the subject of destroying the world. But he's

fair—even you will have to admit he's fair."

"I'll admit anything when you look at m-me like that. Oh, Aurelie, we could be so h-happy together."

"Please, Steve, let's not get romantic. My ideal of a lover is one who is firm as steel, logical, precise, brainy, unwavering, unmoved by selfish considerations—"

"A d-damn robot, in fact. What will you do if your father builds one whose sole function is to charm women?"

"But that's exactly what I'm trying to explain to you. As long as Frank is doing exactly what Daddy designed him to do Daddy won't make another. You can stop worrying about that."

"And s-start worrying about being an accessory to the d-destruction of civilization."

"Are progress and civilization the same thing?" asked Aurelie prettily. "Daddy and Frank don't think so."

Steve said to Appalachia, "I'm going to ditch him. I can't have his career on my c-conscience."

"What can you do?" asked Appalachia. "Deny him the nomination? He'll run as an independent and win in a walk. Listen, he made a speech last night to a really advanced group—the Association of Stitchers, Hemmers and Embroiderers—and he had them gasping in the aisles, gasping for more, that is. And you know the line he fed them? He told them they were being exploited by the machines. That they had lost all pride in their craft, had become mere slaves to the machines. And they were de-

manding newer, better, more automatic machines to enslave themselves further instead of higher wages for the skill only they possessed. They were doing themselves out of their jobs and a higher standard of living by their shortsighted worship of progress. He painted a rosy picture of life with twice, three times as much money in their pay envelopes for half the time they now put in—and work spread around so they had no fear of scabs taking their jobs. And what would they come home to with their bigger pay? Why, a life without television commercials, overworked spouses, neurotic children, cars to keep payments up on and ride bumper to bumper on Sundays, the air poisoned by their fumes, people killed in fantastic numbers by them, instead of keeping a horse and buggy—that's what he said, right out—a horse and buggy to ride quietly to the grocery store instead of a madhouse supermarket. And they lapped it up. I know he's just a machine but he sounds so sincere they'll buy anything he says."

FRANK MERRIWELL was nominated to run for the Fifteenth Congressional District seat the following summer. In his acceptance speech he said, "I am against schools."

His audience, conditioned by his rapidly burgeoning reputation to applaud whatever he said, paused with hands in midair.

"Now he's d-done it," Steve whispered to Appalachia. "He might as well have c-come right out flat against m-motherhood and be done with it."

"Hush. Wait and see what happens."

There were mutterings of: "Education's the most important thing there is—" but they were met by counter-mutterings of: "Never did anything for me—" "I got a real smart kid, see, and what does he bring home? Nothing but Fs—" "I was beat out of this job by a guy with a string of degrees as long as your arm and he don't know the time of day—" "All these teachers are overpaid anyhow. I'd sure like a eight-to-three job with four months off a year—"

The applause came first in a liquid splatter, like the first drops of a hard storm, then in a forceful ovation.

Frank won the primary, but there competition was not serious and he coasted to his victory on the reputation he had made as councilman, plus the assurances of his supporters that being against schools implied no hostility to education—quite the contrary. Progress had locked pupils and teachers into a cage—he proposed to do away with this imprisonment and let them find each other again freely.

The general election was something else. Just as the ninth ward had been, the fifteenth district was an enigma. For as long as anyone could remember it had been sending to Congress Tyrconnel Costello, a Presbyterian minister who owed his continuing success to keeping his mouth shut. His constituency voted him into office without looking at its ballots—he ran for office without even making a speech, often without leaving Washington. But after a series of

lucky investments, Reverend Tyr had announced his retirement. It remained for Frank to run against the incumbent's hand-picked successor, Lemuel Fox. Again dissident groups joined to back a third candidate, but running in front were Merriwell and Fox.

"No use to write him a speech," Steve declared. "When did I ever write him a speech he d-didn't ignore?"

"He doesn't ignore them—he stores them in his memory banks," said Appalachia Lee. "If you listen closely you can hear the pure accents of Western Reserve coming through now and then. That pest from the wire service is still waiting like a cat sitting down in front of a bird cage. What do you want me to tell him?"

Steve clutched his brow in a gesture he had developed since Frank Merriwell had come on the political scene. "T-tell him to d-drop dead. He's out to do a hatchet job."

"You're slipping, Steve—that robot is getting you down. Remember what happened to Nixon when he antagonized the working press. And Wilton Ogilvie can do you, if not your boy, a lot of harm."

"T-tell him anything. Make up a story, that's a sweetheart. I've got to wrestle with Frank's statement repudiating the support of the John Birch Society."

"What's so tough about that?"

"If I can't get him to tone it down—and when have I ever got him to t-tone anything d-down?—he's going to slap some of his most ardent s-supporters in the face. Listen. 'I want no help, nor

will I accept any from the forward-looking John Birch Society. I am opposed to all progress, and the society represents the progress from McKinley to Harding.' How can I let that go?"

"Sleep on it," advised Miss Lee. "Meanwhile I advise you to sweet-talk Wilton Ogilvie. He's fairly sharp as newspapermen go and he won't take a runaround. He thinks he's got something on Frank and he wants a complete life story, beginning exactly with what little old log cabin Frank was born in and whose little old child he was."

Steve groaned. "I knew this was bound to happen. Okay, I'll t-talk to him out there. Let one of these fellows in your private office and something's b-bound to catch his eye that shouldn't."

Wilton Ogilvie, UPI, looked like a Pekingese with glasses. His air of baffled pugnacity didn't fool Steve Woolsey for a moment. "Ah, M-Mr. Ogilvie." Steve nervously offered his hand and got a relaxed bundle of icy fingers.

Ogilvie riffled a notebook. "Few little questions here, Mr. Woolsey. For a starter, how old's your candidate and when's his birthday?"

"March fifteenth," said Steve, picking the date he had led Frank away from van Ten Bosch's laboratory. "And he's not m-my candidate. Frank Merriwell is the p-people's choice of a c-candidate. His m-meteoritic rise—"

"Year," cut in Ogilvie, "of birth?"

"N-nineteen forty-three," said Steve, rapidly counting backward. "If elected—and we have every reason to believe—"

"Where?"

"Where? Wisconsin," Stevenson said, naming a county seat where he knew the courthouse had burned to the ground in 1950. "But he's spent his entire life in this city. Frank was an orphan." Steve, momentarily encouraged by Ogilvie's slacklipped grin and warmed by the sound of his own voice, ran on recklessly. "An excellent s-scholar, good at sports, Frank was—"

"Where?"

"Where did he g-go to school? Oh, PS number—ah-ah—I've forgotten, but I'll check any details you want and l-let you know."

The newsman's lips changed into the rigid shape of a trap. "Who you trying to snow, Woolsey?" Steve blinked. Ogilvie flipped more pages in the notebook, began to read—or pretend to read. "Says here Frank Merriwell was born Kearney, Nebraska, April first, nineteen forty-two, youngest of five. I went to see Merriwell before I came here."

"Ha-ha. A great kiddier, Frank. A regular b-buffoon. April Fool's Day—catch on?"

Ogilvie flicked his wrist in a brushing motion. "Save it," he advised. "I've been working on this a long time. Also been out to see this guy—" he riffled more pages—"Vanderbosh."

The story—CONGRESSIONAL CANDIDATE EXPOSED AS ROBOT; ARTIFICIAL MAN SERVED ON CITY; COURTS TO DECIDE LEGALITY—was in all the evening papers and the next day the morning ones had UPI interpretives delving into all possible ramifications of letting a machine run for office. Suppose Soviet scientists invented a way of

tuning in on his wavelength and making him a tool? A communist tool right in the United States Congress? Or suppose he ran amuck, as computers do from time to time, and attacked other Congressmen with his steel fists. There was no end to the possible dangers. There was also an interview with Lemuel Fox. "Let a machine take over from our beloved Reverend Costello? It would be unAmerican. Talk about dehumanizing the office-seeker! Open the door to this kind of corruption and pretty soon Boss Woolsey will have a hundred robots on Capitol Hill running his errands. Anarchy! Chaos! If this mess of nuts and bolts can run for Congress—even though he'll be swamped as all my polls predict—our next governor could be a Marchand calculator and our next Senator a Burroughs bookkeeping machine!"

The New York Times editorial said in part, "... disagreeing with his callow philosophy we would advise the voters of his district to repudiate him at the polls, it is not because of his origin. It is for the courts to decide whether he can legally represent the people in Congress. Without anticipating the decision we feel that an artificial man has many advantages to offer the electorate. A robot needs no sleep and can work at the public business twenty-four hours a day. Having no appetites he is incorruptible."

The Daily News said, "Merriwell may be a better American than many officials. At least he was MADE IN USA, which is more than can be said for many commie-coddlers."

Since the story was national, many columnists commented. A leading conservative wrote: "Merriwell is a subtle plant by the liberal establishment. On the surface he appeals to the normally conservative voter, but once in office he is likely to turn on the police force and shelter crooks from punishment for their peccadilloes, for not having a soul . . ."

A nationally syndicated rumor-monger chanted: "Surely an honest machine is better than a machine politician like 'Foxy' Fox, who has yet to explain a \$10,000 fee from the Elves, Gnomes and Little Men Marching and Chowder Society. Why did they give you ten grand, Foxy?"

A liberal commentator spoke wistfully of the unenviable position of Steve Woolsey, exposed and lonely.

Time began its cover story, "Robot Merriwell made history and litigation as well as news. Worried was opponent Lemuel 'Foxy' Fox. . . ."

A nationwide poll produced the following answers to this question: Do you believe a robot should be elected to Congress?

Yes	No	Don't know
30%	30%	40%

Do you regard a robot as a fellow being? 10% 50% 40%

Would you want a robot as a neighbor? 0% 99% 1%

The American Civil Liberties Union asked biblically, "What is man?" and answered Aristotelianly, "A political engine." The Americans for Democratic Action issued a statement that democracy was not only color blind but igno-

rant of biology, and students on campuses as far north as the University of Alaska and as far west as Hilo were aroused on Frank's behalf. Demonstrations were held, placards went up and Frank received altogether far more publicity than if his campaign had been run by Madison Avenue. An Association for the Preservation of the Rights of Machines was formed and the Elves, Gnomes and Little Men Marching and Chowder Society denied through its president that it had ever paid Foxy Fox ten thousand dollars, insisting that it had never had a dime in its treasury—that it had no treasury, in fact, that subsisted solely on golden dew gathered on midsummer mornings. The President of the United States, speaking to a Congress of Inventors, asserted that he took no sides and when he said, as he did now, that a public servant must have a heart, he was speaking in the pickwickian sense.

On election eve Steve was asked by the press—in the form of Wilton Ogilvie, to whom the Horace Greeley Club had evidently been assigned as a permanent beat—if he thought disclosure of Frank's origin had hurt his chances. And Steve, filled with intimations of Frank's ruin and his own, replied with a resounding, "N-no."

IV

FRANK MERRIWELL began to be mentioned for the Presidency while he was still a freshman Congressman. Stevenson Woolsey saw only three things that would stand in his way. Merriwell had no

national organization. He was not married. And the court case was still pending over whether he was in fact qualified to be a Representative in Congress.

He had won an earlier case testing whether he was a citizen of the United States when the court construed the word "born" in the Constitution also to mean "manufactured."

"I am not worried," Frank said. (He no longer bothered to point out that he wasn't programed to worry—after having been exposed as a machine he had behaved as if he no longer believed he had ever been anything more or less than human.) "I have faith in our courts. I shall abide by whatever judgment is made."

"You're d-damn right you will," Steve said. "You will also keep your big mouth shut for once and let Harry do all the talking. This time."

"I am opposed to progress," said Frank simply. "The Common Law will deliver me."

The Harry referred to was Harry Shapiro, an attorney famous for having successfully argued on behalf of a number of unconventional clients, including a lady who had put her fist through a glass door (Shapiro had won her substantial damages for cuts and abrasions as well as mental anguish), a bigamist being sued simultaneously by both wives (Harry proved both suits invalid because his client had not been convicted of bigamy), and a contractor who had run up a twenty-story building on the wrong site.

Steve, Aurelie and Appalachia

occupied the front row during Frank's hearing. To begin with, counsel for the plaintiff, an "interested citizen," argued that no person who had been born—or manufactured—on the date it was stipulated Frank had been turned out in the van Ten Bosch laboratory, was old enough to hold office as a Representative and that Frank's election should be nullified.

Harry Shapiro rose to the occasion like a porpoise to sunshine. A small man, gray and squinting, with the voice of a cannon, he called a curious bevy of witnesses—a man with a metal hand, another with a prosthetic leg, a surgeon who testified to implanting an artificial kidney and the patient with the said kidney. Of each Shapiro inquired the date of birth, the date of installation of the particular prosthesis, calling attention to the fact that the date of one had no connection with the other. His point was clear long before he had finished. The parade was closed with the most important witness of all.

Dr. van Ten Bosch looked much the same as he had the day Steve first laid eyes on him—the day Aurelie had said, *This is Daddy—he's so far out in left field he's playing in another league*. His bushy white hair was wild. His eyes were glowing embers. His mouth was set in a perpetual sneer.

He began by refusing to be sworn. "Hocus-pocus for superstitious minds. I will say my say and if you think it is untrue, convict me of perjury."

"I shall fine you for contempt of

court instead," said the judge. "I will allow you to affirm, if you prefer."

"It's all humbug," snarled Ten Bosch. "This I will affirm with all my heart."

One of the jurymen looked so pleased at this that Steve suspected he had been planted by one or the other lawyer. Then, under Shapiro's sharp questioning, Ten Bosch affirmed that he had been at a loss for a particular part and in his haste had made use, in Frank's construction, of the handiest substitute, a transformer from a thirty-five-year-old radio that was lying around.

OPPOSING counsel called no witnesses. He addressed the jury.

"Ladies and gentlemen. It has seldom been my pleasure to look upon a jury so alert, so clearly unbiased, so eager to weigh the evidence and bring in a patriotic verdict—it is really superfluous for me to address you. My learned adversary has proved that the date of a mechanical appliance does not invalidate the date of birth or manufacture. Now the date of manufacture of this mechanical thing, known as Four-X alias Frank Merriwell, is less than twenty-five years ago, consequently, even if he were a sentient human being—which he is not as I shall demonstrate to your satisfaction—he would not be old enough to serve in Congress. My learned friend would like to date his creation from the installation of a part from a thirty-five-year-old radio. Why not from the date his metal was mined? This is nonsense."

Suppose a man uses his grandfather's false teeth—does this date his birth from that of his grandfather's dentistry? Let us assume, as my learned opponent might imply if he thought of it, that this transformer or transistor or transubstantiator is of such importance that this mechanical oddity could not exist without it. Does this lend weight? I think not. I think not. Consider the case of a baby born at midnight. The head, clearly the most important part of a Congressman—ahem—(laughter from the jury)—clearly the most important part, emerges at eleven fifty-nine, the legs only at twelve-oh-one. The baby is credited to the later day, not the earlier. I'm sure this disposes of learned counsel's spare parts. Your honor, if the court please, I meant no disrespect to my colleague. I spoke only of what was brought forth in his direct examination. I withdraw spare parts and speak instead of the transformer by which my learned adversary would transform this machine into a human being. But with a jury such as I see before me he cannot do it. I repeat, he cannot do it. For what is the definition of a sentient human being, capable of bearing responsibility of election to a governing body? Why, he must be able to distinguish between right and wrong. Is this the function of a machine? Members of the jury, you know as well as I that no machine can distinguish between right and wrong. If it could, our whole judicial system would fall to the ground—we would install machines to return our verdicts and other machines to pass sentences."

Here the jury began yawning. "A machine cannot weep, cannot laugh, and without tears or laughter how can one say, 'This is good or this is evil?'" A juryman dozed. "Ladies and gentlemen, I thank you."

Without leaving the box the jury brought in a verdict for Frank. The court recapitulated by saying that if a man had an artificial leg made in 1960 this didn't invalidate his having been born in 1930. On the other hand, his having parts dating from 1930 is *prima facie* evidence of his having existed at that time. As for learned counsel's argument that ability to distinguish between right and wrong defined the capability to serve in Congress—this was the first time he had heard of this doctrine. He, the court, wished it could be applied, and rigorously. To resume, right and wrong were absolutes—the court had no sympathy with notions that they were relative matters. But to a savage from the wilds of New Guinea (he meant no disrespect to that distinguished member of the United Nations—this was only by way of example) it was necessary to instill a concept of what constituted social as opposed to antisocial behavior in western culture. No testimony had been offered that Mr. Merriwell had not had such concepts inculcated. As for machines taking over the judicial functions, he for one would welcome such a relief. The court warmly agreed with the jury's eminently sensible verdict and gave judgment and costs to the defendant whom he congratulated on his recent political victory. (Cheers.)

"SOMEHOW," said Appalachia, "I've begun to think of Frank as one who can't lose."

"Why, of course, dear," said Aurelie. "What else?"

While he was in Congress Frank helped curb highway building, tariff-raising, defense-spending. He voted *no* on practically everything, including funds for the un-American Activities Committee, except foreign aid—as long as it didn't include munitions ("Isolation is progress."), cultural exchanges ("I am opposed to schools, not to knowledge."), increased income taxes in the upper brackets ("Wealth is progress. Let us have primitive equality."), and programs calling for aid to artists and writers. ("Art knows nothing of progress. Even James Joyce is not an improvement on Laurence Sterne.") He introduced a bill to tax all advertising and voted for higher taxes on cigarettes but to remove all excise on liquors. ("As well tax cheese," he said. "Fermentation is a natural process.") He voted to favor labor unions ("The most unprogressive force in the country."), and for civil rights ("Enslaving the black man is progress—he was free before the white man set foot in Dahomey.")

Despite his stand on civil rights, southern politicians were not unfavorably inclined toward the Merriwell-for-President boom. What better solution to the bitter pill of integration than the abolition of schools altogether? Before the New Hampshire primary Frank had a hundred pledged delegates from Dixie. Steve Woolsey—noting one day in his office how the sun on

Appalachia's skin made him think of a vacation in the tropics—said, "Frank's career has been too quick, too s-slick. He may even get the nomination. But he isn't ready for the P-Presidency."

"How's that?" asked Appalachia, tenderly scratching a pale brown arm with long brown fingers. "It seems to me he was born ready—and I use the word born in the broad legal sense. He goes straight to his objective." She sighed. "Sometimes I wish—"

Steve, all politics, ignored the sigh and the unfinished sentence. "The worst drawback and the one we c-can't do anything about is his n-not being married. No one except Buchanan and Cleveland has been elected who wasn't married. Jackson was a widower."

"So was Jefferson," she reminded him. "Not being married won't hurt him with the old maids. Besides—"

"Go on."

"He'll get married."

"How can he? I mean he's not—Who would marry him?"

"Aurelie van Ten Bosch, of course. He was made for her."

Stevenson waited for the impact of the shock to crush him. All the time he had known Aurelie would throw him over for another man. Another *man*, that is. He had always feared she would give the heart he could never quite command to a four-minute miler or a centerfielder batting .400 or a pitcher winning twenty-five games in a season—or even a catcher. But this was—this was . . . Words, even stuttered ones, failed him. A machine candidate, he remembered at

last. He had groomed his own rival. And yet—somehow he wasn't shattered. If Aurelie really preferred the Tin Woodman to the Wizard of Oz her mind was not functioning, poor girl. Perhaps—perhaps she would realize her mistake before it was too late. If only she were as sensible as—as, say, someone like Appalachia Lee. Feminine, yet with a grasp of reality . . .

WILTON OGILVIE broke the story of the engagement three days later. Four days after that Congressman Merriwell and his betrothed eloped to Mexico. No Presidential aspirant could have asked for a better press. Frank, every black-Irish hair of his wig smoothed not quite enough to hide the slight wave, was quoted as saying, "I am opposed to all progress," while astride a burro in Sonora with his wife riding pillion. Swimming at Puerto Vallarte—Frank's torso in sunburned make-up looked as good as any other on the beach—he challenged the usefulness of computers, praised the abacus and the quill pen, denounced submarines, elevators and mini-skirts. In all the pictures, Aurelie was radiant.

"That's what the caption says," muttered Steve gloomily. "What's she got to be radiant about?"

"I asked her the same thing," admitted Appalachia. "You might call it feminine curiosity. All she did was give me a look and say, 'Science is wonderful, progress or no progress.'"

"N-nonsense. A girl like you—"

"Yes, go on," urged Appalachia.

"What about a girl like me?"

"I was only going to say a g-girl like you wouldn't settle for science. Progress or no progress."

"Oh, Stevenson, you do have the neatest way of putting things. In a nutshell."

"I c-could have been on the debating team if it wasn't for m-my s-stutter."

"I think your stutter is adorable."

Frank continued his winning streak. He won the New Hampshire primary. He was nosed out in North Dakota but swept Wisconsin and Nebraska. He carried Oregon and got most of the California delegates. He went to the convention with four hundred votes and Steve Woolsey worked out a deal with the runner-up for the Vice Presidency. Frank was nominated on the first ballot.

His opponent was a maverick Kennedy who had as running mate an equally maverick Rockefeller. "Young" (fifty) Kennedy declared, "I am for progress. I don't intend to give up the steam locomotive or the steel plow for any renegade who has turned against the very force that created it. The only progress I'm dubious about is that which allows artificial men to run for office. When the steel plow was first invented they said it would poison the soil. When the first passengers traveled at a hair-raising fifteen miles an hour by locomotive they were warned they would hemorrhage to death. Those are the kind of people who are against progress and want to go back to the hoe and the handcart."

"My esteemed opponent," re-

plied Frank smoothly, "is for the steel plow—the plow that broke the plains and gave us the dustbowl of the nineteen-thirties. He is for the steam locomotive—which is now to be found only in museums. If this is the kind of progress my opponents are for, let me say, Go to the museums and dustbowls, my friends, and give us pure air and pure food . . ." But it really didn't matter what Frank said. People asked themselves for the first time what progress had brought them. Installment buying? Planned obsolescence? Devitalized food? The AMA? Electric lights that burned out as fast as they could be replaced? Automobiles that broke down carrying people at eighty miles an hour to new billboards, new hot-dog stands? Jerry-built housing developments that became slums before the crumbling houses were paid for? H-bombs? Napalm? Starvation in Mississippi and New Mexico? The UN? Policemen, censors and the PTA? Cities with elephantiasis? Fashions? Caramel-colored grain neutral spirits? A morality based on The Pill? Enough people came up with an answer to elect Frank. He carried every state but Arizona, Alabama, Georgia, South Carolina and Vermont. He even squeaked through in Maine and Florida.

AT HIS inauguration Frank wore a three-cornered hat with a red-white-and-blue cockade and rode down Pennsylvania Avenue in an open horse-drawn carriage. The music for the Inaugural Ball was provided by hurdy-gurdies. In

doing over the White House Aurelie had the electric lights ripped out and candles ordered for the chandeliers. The Master Chandeliers Association sent her a set of antique brass bedwarmers in token of gratitude. A golden age dawned.

Except for a few scattered die-hards, Frank Merriwell's view had become the popular view. People discovered a new content, even a new prosperity in abandoning television, the all-electric kitchen and the princess telephone in every room. All open-air movie theaters were turned into archery ranges, and cracker barrels returned to the corner groceries. Advertising was so heavily taxed that Madison Avenue became a ghost street. Automobiles were not prohibited, but they were considered to be a sign of drivers who hadn't yet made it into the horsey set. Smoke and soot gradually vanished from the shrinking cities as factory after factory for manufacturing useless gadgets closed down.

And there were charming fringe benefits. One week Aurelie appeared in public in a fascinator and the next every secretary from Boston to Los Angeles appeared in fascinators. Of course, the country had fewer secretaries (and book-keepers and time-study experts) now that competition among businesses was slackening. Wimples became popular. Most girls stayed home to bake bread, be wed young and discover that large families sharing the burdens of the household could accomplish more with greater ease than all the silent, automatic mobilmaid, pop-up, snap-on, drip-dry, and press-to-re-

lease items had in the dreary past.

Sociologists studied the phenomenon and announced it was a perfectly normal synthesis brought about by the pressure of the new feminism versus the new antifeminism and would have happened without Frank Merriwell, he being only the product of his age and not vice versa. It is doubtful if President Merriwell ever scanned it, he being busy with the erection and dedication of the grandest of Washington's memorials, that dedicated to Sir William Schwenck Gilbert, the only non-American ever to be so honored. As the President cut the ribbon before the mammoth replica of the Savoy Theater, he said tersely, "He was

absolutely against all progress."

Receiving the account by special courier who had used up several relays of horses, Stevenson Woolsey absently laid the heavy parchment aside.

"Appalachia—what an appalling name for such a g-girl. May I call you P-Polly?"

"Oh, Steve—all my life I've wanted to be called Polly. Now I'll never let anyone call me anything else."

"Well, no use going overboard about it. Appalachia's still your legal name, you know. Appalachia Lee. You think it might sound awkward if you changed it to Polly Woolsey?"

His political partner, removing

★ ★ ★ GALAXY STARS ★ ★ ★

Author delivers wife of daughter in east coast national forest. Fiction? No, fact! Six years ago Ward Moore and wife Raylyn were traveling up the coast when about-to-be daughter Sara arrived at her destination, sometime before her parents reached theirs. Moore, already the patriarch of several grown families, delivered the newest member of the tribe.

"There has always been a certain amount of imagination effervescent in my family," Ward Moore writes us. "One of my maternal ancestors 'ran—' so help me that's the verb in the encyclopedia, '—through Italy and Istria in the 16th century, proclaiming the imminent coming of the Messiah . . ." A fine heritage for an sf writer!

"What have I been doing in the past few years," Moore's letter echoes in response to our queries. "I have written three excellent novels which passed, without the change of a word or punctuation mark, from being too far ahead of their time to being just too old fashioned and conventional.

"Also I've been cultivating my garden. Why doesn't someone realize that Vol-



WARD MOORE

taire wasn't speaking metaphorically, but quite literally?

"Of the novels I published before I went out of style, there were several: *Breathe the Air Again*, *Greener Than You Think*, *Cloud By Day*, *Bring the Jubilee*, and *Joyleg*—a 1962 collaboration with Avram Davidson."

his hands from just below her waist in the back, murmured, "What a turn you've given me! Just let me have a few days to think it over, will you? Or at least a few minutes?" And she allowed a becoming blush to creep up under her milk-chocolate complexion.

"Frank wants us to go along as p-part of his staff to Ulan Bator for his summit conference with the chairman and party secretary, and ninety days on a clipper ship can be pretty boresome to those who aren't married—while it would be just the thing for a honeymoon."

"Why, Stevenson, you romantic old darling, you. Three months on a sailing ship. Whatever will we do?"

It was something short of a year later, after the historic Merriwell summit talks had borne fruit and the world, stimulated by Frank's honest antagonism to any weapon more lethal than a rock, decided to scrap every gun, rifle, plane, tank, warship, pistol, bayonet and bomb, that the unheard-of happened. It came first as a laconic statement from White House Press Secretary Wilton Ogilvie, transmitted by heliograph and semaphore all over the country and around the world:

"After the most conscientious consideration, President Merriwell has decided to resign."

Pressed immediately for reasons, Ogilvie gave out his next communique: "The President is taking this step because he feels his objectives have been achieved and progress is at an end."

All over the world heads of state dropped whatever they were doing to call Frank Merriwell—they for-

got or ignored the open secret of his origin—"A great human being . . ." "A man for the ages. . ." "A soul to admire . . ." and so on.

Some reporter even got to Frank's father-in-law, nested as befitted Frank's position in a hermit's cave high up in the Great Smokies, complete with bats and familiars. Madder than ever, too, he took full credit for everything. "I made Frank Merriwell," he said for publication by various town criers. "I made him what he is. I promised I would destroy civilization and I have done so. What little nests of progress remain in isolated spots will disappear in a few years as soon as the formulas for soft drinks and calculating the velocity of light have been forgotten. We have won, beaten all the false prophets, kept the human race from going to the stars in order to build a heaven on Earth."

Mrs. Merriwell, invited to comment on her father's pronouncement, said only, "Oh, Daddy's an old fuddy-duddy, still living back in the scientific age." First Ladyship had done well by Aurelie. Her charms were the delight of the wood-engravers who had succeeded the photographers.

The clincher came at the press conference when they asked Frank Merriwell what, as ex-President, he proposed to do. He said, "I've had an offer from—" in the pause a score of minds filled in: the Vatican, Oxford University, The Society for the Rights of Man, the ReUnited Nations. But Frank finished, "—the Mets, which I've decided to take."

So he did.



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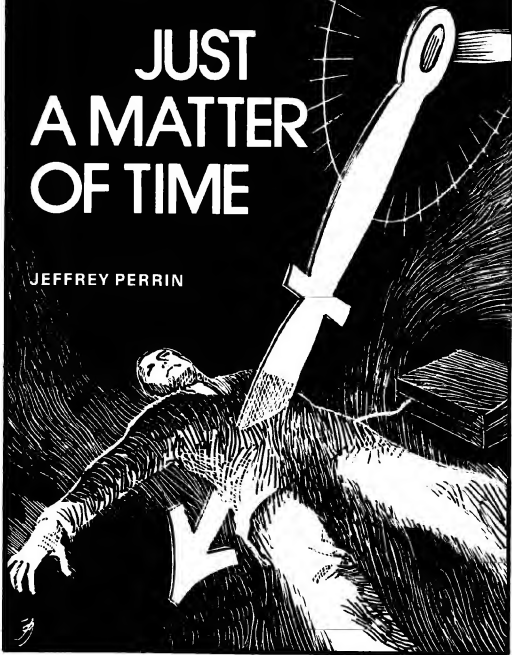
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He could stop the world, but
would it let him get off?

JUST A MATTER OF TIME

JEFFREY PERRIN



WHEN Paul Martin reached his office he found a message on his desk: *Dr. Arno called. He would like to see you at the lab when you have a chance.*

He immediately depressed the key on his squawk box and told his secretary, "Miss Carter, cancel all my appointments today. Tell anyone who calls that I will have to get back to them tomorrow. Get me a company helicopter. Oh, yes, and call Dr. Arno and tell him that I'll be over in twenty minutes."

The helicopter was waiting by the time he reached the roof. He did not often rush like this. But it would be foolish to play executive games with Arno, who was completely impervious to them. Dr. Arno was not just another member of the research staff. He was a rare combination: a brilliant physicist whose findings often made sense in dollars.

Martin had set him up with a lab of his own and had given him a very significant budget for equipment and supplies and complete freedom to pursue whatever research he wished. Probably ninety per cent of his time was spent on pet theories that, even if proven, could not possibly have any commercial application. But the other ten per cent had made Martin Electronics great. The 150-year fuel cell, so necessary for the outer colonies; the loop drive, which was the single largest break-

through in the development of interstellar travel; the multi-polarized memory cell, which reduced room-sized computers to six cubic feet and made them a common household item—these were just a few of the revolutionary advances that had begun with Arno's research.

Martin's train of thought was broken as he spotted the R&D complex below. Off to the left, apart from the other labs, was Dr. Arno's facility, a two-story structure containing over 25 million credits' worth of equipment and one man. Arno generally worked alone. When he needed help he could requisition personnel at will from the other R&D facilities in the complex. Currently he was working alone.

He was out on the roof, waiting for Martin, as the helicopter landed. This meant that whatever he had been working on was completed. While he was still working on something not even a fire could drive him from his lab, much less anything as trivial as a visit by the boss.

In fact, Arno did not actually greet the head of Martin Electronics. Without even a hello, Arno had Paul Martin by the arm and was dragging him quickly into the lab as he talked in that rapid, machine-gun style of his about quantum physics and time and about shaking the very foundations of conventional physical

thinking. Martin let it all go in one ear and out the other as he was rushed down the corridors. He knew that once he got Arno calmed down, he would hear it all over again in simple layman's language, which was all that he understood. Paul Martin was a businessman. He did not have the slightest knowledge of science. If you were to tell him what a machine did he would never ask—nor would he care—how it worked. But, faster than any other man in the galaxy, he could come up with twenty-five commercial applications and a hundred major markets.

AS HE entered Dr. Arno's office Martin saw on the desk a metal box about two inches by five inches by eight inches, a pair of coveralls and some wires leading from the box to the coveralls. That had to be it, whatever "it" was, he decided.

He soon got Arno calmed down and had him begin all over again under the usual ground rules—namely, in simple English.

"Well, ever since the birth of quantum physics at the beginning of the twentieth century there has been speculation as to whether or not time is quantized."

"You're getting closer to the mother tongue—but you're not yet quite there."

"Well, let me give you an example. You know a little about elec-

tricity. Now, given a sufficient power source, can you get any specific amount of electric charge that you want?"

"Of course."

"Wrong. Because there is an absolute unit of electric charge, namely the charge of one electron. So you can get the charge of one billion electrons or one billion and one electrons, but you can't get the charge of one billion and a half electrons. So we say that electricity is quantized. Heat, on the other hand, is not quantized. You can get any specific amount of heat."

"But the difference between one billion electrons and a billion and a half is too trivial to make any difference."

"That's true in any normal use of electricity. But the fact that electricity is quantized has immense scientific significance. Now, we were talking about time. As I was saying, physicists have long argued over whether time is or is not quantized. Given the limitations of our measuring devices, we have not been able to answer the question—until now. I have always believed that it is. Just a gut reaction, mind you, not based on any experimental data. But I've been playing with the idea in experimental applications on and off for several years—and I've finally proved my point. Just as we can isolate a single electron, the quantum of electricity, I have de-

veloped a device that can isolate a single quantum of time."

Paul Martin let this last statement sift through his mind, but without results. He could not understand what the machine did.

"Let me demonstrate."

Dr. Arno slowly put on the coveralls, taking care not to disconnect any of the thin wires linking them with the black metal box. They covered him completely except for his head. Then he hooked the box onto the belt, thus leaving his hands free. As Martin closely watched, he reached over and pushed a button on the box.

Suddenly he was not there.

Martin choked. He closed his eyes tightly, looked again at the spot where Dr. Arno had stood. He refused to believe his eyes.

"Well?"

His heart skipped a beat as he spun around to face the voice. Dr. Arno was sitting in a chair by the door.

"But this is impossible! It's—*it's teleportation!*"

"Nonsense. First of all, it was not teleportation. I walked leisurely from the desk to this chair and sat down. Secondly, I doubt that teleportation is impossible, although I've never tried to experiment with it. But that is an idea. Maybe when this is perfected—"

"But, but you couldn't have walked to that chair. I saw you standing by the desk one instant

and suddenly you were in that chair."

"Yet it wasn't instantaneous. In your time reckoning, it took one time quantum, approximately one three-hundred-thousandth of a second. I haven't yet computed it exactly. This device slipped me into one time quantum and kept me there for about two minutes in my time. Your time—and that means the whole rest of the universe except me—was frozen into one three-hundred-thousandth of a second, while I had about two minutes to walk around."

"I just can't understand what happened. I can't believe my senses. I can't—"

As he was speaking Dr. Arno pushed the button again and Paul Martin was talking to an empty chair. Dr. Arno was seated behind his desk.

"Here, try it," he said as he started to get out of the coveralls. "It can't hurt you."

DESPITE this pledge it took quite some time to coax Martin into the coveralls. He protested the entire time that Dr. Arno was stuffing him into them. Arno later described the experience as similar to that of clothing a young child, who had not mastered buttons, zippers, or shoelaces. But finally Paul Martin was set.

"Now wait a minute while I get a coin. Let me know when you're about to push the button and I'll

drop it. The result should be impressive."

Arno reached into his pocket and got out a ten-cent credit coin. "Okay. Go ahead."

Martin drew up his courage and reached for the button. Just as he saw Dr. Arno drop the coin, he closed his eyes and pushed the button.

Nothing happened. Everything felt the same. He tried moving his hands, and they worked perfectly. Then it dawned on him that he had not heard the coin drop.

He slowly opened his eyes. Arno was frozen in place. The coin was suspended in midair. There was no sound. The sound waves were not moving through the air.

It was all a dream. Half in a daze, he moved toward the coin. He reached his hand out and touched it gingerly. It did not move. He drew his hand back and then tried again.

This time the coin dropped to the floor.

"Your two minutes are up." It was reassuring to hear Arno's voice, to be back in the real world again. "You look pretty shaken up. I was, too, the first few times. It takes some getting used to. I'll never forget my first time. It was only about ten seconds then, not two minutes. And lucky for me that it was. I hadn't anticipated that the air molecules wouldn't move, so I couldn't breathe. Since then, I extended the field a bit in

front of the face to correct that problem."

But Martin was not listening. He was still trying to believe that what had just happened had really happened. He could not quite convince himself.

They sat and discussed it some more. Then he tried the experiment again. He was still shaky, but no longer in a stupor. The third time he was confident in his movements. The fourth time he enjoyed.

By the time he left the lab it was evening. He decided to fly straight home, rather than return to his office. He knew that he could not work any more that day. He had a lot of thinking to do. His entire concept of the universe seemed shattered. All he wanted in the whole world just then was a drink, a hot shower and a stretch of solitude in which to think.

AT HOME he found all three. Margaret had taken the children down to Buenos Aires that morning for the November Carnival. It was a two-day affair—they were not due back until the following evening.

He still had not been able to think up any salable uses for the device, but he felt certain that there must be some. Part of his agreement with Dr. Arno was that anything he could see a commercial use for belonged exclusively to the company. Any-

thing else Arno was free to publish. It did Martin's ego a world of good whenever he thought about how, of the hundreds of papers that Arno had published on all sorts of topics, no one else had ever come up with a commercial application. If he couldn't, nobody could.

Dr. Arno felt that he would be publishing this one and he was looking forward to it. He was really a child at heart. There had been a look of pure, mischievous glee in his eyes when he had told Martin he would spring his latest findings on the next meeting of the World Physical Society without any advance warning—and then watch their faces as he destroyed the very foundations of their thinking with his announcement.

Around midnight Martin had pretty much decided that this was another of Arno's ninety per-centers, but he vowed to think about it some more the next day. In the meantime, if he were to sleep that night, he had to get the machine off his mind. He flipped on the screen to catch the late news.

It rapidly took his mind off Dr. Arno's new invention. It gave him something far more serious to think about. The first item was that *Stardeck IV* had limped into Outer Station XI. It had been hit by a meteor and would be at least six months in repair.

Martin had three million credits

invested in that venture and he had borrowed the entire sum. In fourteen days, he had to meet a 100,000-credit payment. If the ship had returned on schedule, he would have netted at least 200,000 to 250,000 credits, more than enough to meet the payment. But right now his cash was tied up.

To make matters worse, the collateral for his loan was six million credits worth of Martin Electronics stock. If he failed to meet that payment the First Galaxy Commercial Bank could call the entire loan and sell enough of the stock to raise it. The stock was unregistered and not free to trade. With such stock, sold privately, you could only figure on receiving about half of the market value of free stock. That meant that the bank might have to sell Martin's entire holdings.

He went over all of his records, looking for the means to raise 100,000 credits quickly. He woke his accountant and had him join the hunt. There was no way. Nearly all of his assets were frozen and could not be converted to cash in only fourteen days.

He lay in bed awake all night, thinking and smoking one synthetic cigarette after another. By dawn he had not slept, but he had the embryo of a plan. Instead of going to the office that morning, he returned to Dr. Arno's lab.

"How long can you keep someone in a time quantum? Can you

extend it beyond the current two minutes?"

"Yes, but not much more, since the power supply must be self-contained. I'd say the upside limit is in the four- to five-minute range."

"I'd like you to build me another device with the following specifications—" He took a piece of paper from the desk drawer and wrote:

1. Time freeze 4-5 minutes.
2. Coveralls can be worn under street clothing, with clothing included in the field.
3. Mechanism built into conventional attache case, with button on outside of case. Remainder of case free to carry other materials.
4. Only one wire, leading from case to waist of coveralls, which can be plugged and unplugged at case end.

He handed the paper to Arno. "Well, can you do it?"

"Of course. There's nothing really different here except the packaging and upping the power source."

"How long will it take you?"

"If I convert the one I already built—about a week."

"If you don't work on anything else except this?"

"Then I guess about three days.

But I don't see the reason for all the rush."

"I've got a very good reason, but I can't discuss it with you now. I'll be back Friday afternoon to pick up the unit."

HE CALLED Miss Carter to tell her that he would not be in for the rest of the day and asked her to pacify all callers as best she could. His next stop was the financial district, where he visited several banks. He spent most time at the First Galaxy Commercial, which he considered the source of his problems.

He kept his usual office hours during the rest of the week. The time seemed to him to pass remarkably slowly. He spoke with no one at the office and during evenings he avoided Margaret and the children. Nothing mattered until he picked up the machine at Arno's lab on Friday.

Over the weekend he tried hard to act as if he realized that Margaret and the children were alive, but he did not succeed. By Sunday night his children hated him and his wife was insisting that he see a psychiatrist. But he knew that a great weight would be lifted from his shoulders tomorrow and he would be able to live and enjoy again. After an eternal, sleepless night Monday morning finally dawned.

As soon as he was alone he called Miss Carter to tell her that

he had an urgent business meeting and would not be in today. Then he got into the coveralls and put on a business suit over them. He called for a taxi, put on a top-coat and leather gloves, picked up his special attache case and announced at the door that he had an early meeting and would have to eat breakfast on the way.

"I really don't think you should go in today, dear. You haven't been yourself lately."

"Oh, ridiculous, Marge. I've had a few rough days worrying about one particular problem. This meeting today should solve it."

"Well, I don't like it. But if you insist on going, at least have some coffee before you leave."

"No time. But I promise you that I'll have a cup before my first appointment." He kissed her tenderly and left. The taxi was waiting. He gave an address in the outskirts of the financial district. He would walk the last several blocks.

He paused outside the entrance of the First Galaxy Commercial Bank and ran through his mind exactly what he was going to do. He examined every detail of his plan for the hundredth time, looking for areas of possible trouble. Having decided for the hundredth time that there were none he lifted his head, threw back his shoulders and strode into the bank.

Once inside, he did not hesitate.

He knew exactly what to do. He walked directly to the lounge area, where people filled out forms and waited to see loan officials. From it, he had an unobstructed view of the entrance to one particular teller's cage. It had one of those buzzer contraptions that let you in after you were recognized.

He unfolded a newspaper and, under its cover, plugged the wire from his clothes into the attache case. He then settled back, feigned reading and watched the buzzing door. Many people entered and left by it. Eventually one of them would open the door wide enough for a second person to pass. He would not have to keep it that way for long. One three-hundred-thousandth of a second was quite sufficient.

JOHAN MARLOW awoke early that morning. He came to sneezing, his eyes running. Numerous pills and nose sprays later he again felt like a functioning human being. He cursed the generations of medical researchers who had broken the backs of cancer, heart disease and most infectious diseases, but who still could offer nothing better against hay fever than temporary relief. Everywhere men with artificial hearts, livers, kidneys or lungs walked the streets, but no one yet had artificial sinuses. Nor would anyone ever have them, most likely.

What annoyed him most was the

fact that it was man-made pollutants in the air that made the lives of men such as himself so unbearable.

His job as an executive trainee at the First Galaxy Commercial was neither interesting nor challenging. There was precious little training. One was simply made to endure a period of menial servitude before he was given meaningful work. Most of his time was spent on such essentials as retabulating figures already calculated by a computer, checking for errors (in eighteen months he had yet to find one), going out for coffee and counting the days until he would be performing useful work. He smiled at the thought that at least today he would probably have occasional fits of sneezing to break the monotony. Viewed in that light, his hay fever no longer appeared so unredeemingly awful.

Once the customers began to arrive he was able to make the time pass more quickly by practicing his people-watching hobby. The bank was a good place for it, because it drew a lovely assortment of strange characters. There was the old woman who came every Monday to open her safe deposit box and look fondly at her jewels and stock certificates. There was a chap in the lounge who sat caressing an attache case as if it contained a key to the wealth of the universe.

A call interrupted his observa-

tions to inform him that the computer runs were ready. He went to the computer room to get the four copies for the day. Each was a little over two inches thick and contained over six pounds of paper. Unfolded, they would probably stretch clear to the uptown branch. Ted, a programmer, piled them on Marlow's outstretched arms and he backed out of the room with his burden. He delivered one to Mr. Gate's office and that staid, gentleman removed the top copy from the pile. The weight drop to eighteen pounds felt good.

Delivering the two copies to the teller's cage required him to cross the lobby, bend at the knees with his back straight and his arms parallel to the floor so that he could push an annoyingly low buzzer to request entry. As he crouched, pressing the buzzer, he realized that there would be an added difficulty today. He felt the beginnings and then the rumbling growth of a monumental sneeze. There was no place handy for him to put down the runs, so he hurriedly balanced them on his left arm, using his right to grope for a tissue in his jacket pocket.

The buzzer rang. Clutching the runs with his left arm and the tissue with his right hand, he pushed open the door with his back and turned to enter. But the sneeze was upon him. As he doubled over he felt the runs slip from his arm and

the tissue fly from his hand, driven by the hard, loud gust of air he had just expelled. His eyes tearing and half closed, he tried to grab both simultaneously. In doing so he pushed the door open wide.

Across the lobby, Paul Martin pressed a small black button on the attache case he was holding on his lap, under his newspaper.

EVERYONE froze. Everything was silent. Paul Martin attached the case to the hooks he had secured to his belt and crossed the lobby. As he slipped past the crouching figure, frozen as it grasped toward a falling stack of paper and a solitary tissue suspended in the air before it, Martin's eyes widened. He would not have to go any farther. Just off to his left, on a shelf, were piled packets of twenty- and fifty-credit notes, one hundred notes to each packet. He counted five packets of fifties and eight of twenties. That meant 41,000 credits.

He glanced at his watch. One minute and five seconds had passed. A minimum of two minutes, fifty-five seconds were left and he had already located all he needed at this first stop. He opened the attache case and reached for the topmost packet of fifties. It would not budge.

He tried again—pushing, pulling and twisting—but to no avail. His mere mortal strength could not move a stationary pile of paper

even a fraction of an inch in one three-hundred-thousandth of a second. Two minutes were gone.

In a fury, he attacked the higher pile of twenties. He rammed it with his shoulder. It was like ramming a steel girder. Two minutes, forty seconds. He looked around for something hard to smash the piles with, but he could no more move any useful tool than he could the money. Three minutes, thirty seconds.

In one last effort he clamped his hands around the pile of twenties, placed both feet high against the wall and pushed. It would not budge. He strained and pushed harder. Still it would not budge.

He was so wrapped up in his effort that he did not notice his grip slipping. Suddenly he was flying backward through the air. His back hit the corner of something hard, sharp and unyielding. As he felt the expanding blade pierce his coat, his jacket and then his skin he let out a soundless scream.

MARLOW'S right hand suddenly struck a man. A falling man. A screaming man. But where had he come from?

The man hit the ground and lay still. He was no longer screaming. A pool of blood began to work its way out from under his form.

"What happened?"

"Who is it?"

"What's going on?"

"Somebody call the police—"

John Marlow leaned over and listened for the stranger's breath and felt for a pulse. He could detect neither.

"John, do you know this man? What's he doing in the teller's cage?"

"He's dead." John Marlow got up slowly and moved to a chair. He could not understand what had happened. He was sure that this man had not been in the cage the instant before. In fact, wasn't he the gentleman who had been sitting in the lounge? Yes, of course he was. But that was impossible. Marlow had seen him still sitting there, at the other end of the lobby, as he backed into the teller's cage.

Marlow told this to the police when they arrived and again at the lengthier questioning that took place at police headquarters. He was noticeably experiencing mild shock, so his testimony was considered of limited value.

It was to be many years before he completely stopped having at least occasional nightmares about the screaming man, who suddenly appeared before his eyes, only to die with a horrible, wide-eyed look on his face.

NEW YORK, Nov. 17 (AP)—Autopsy results failed to shed any light on the mysterious death of industrialist Paul R. Martin, chairman and president of Martin Electronics Corporation,

who died on Monday of apparently violent causes in the main office of the First Galaxy Commercial Bank.

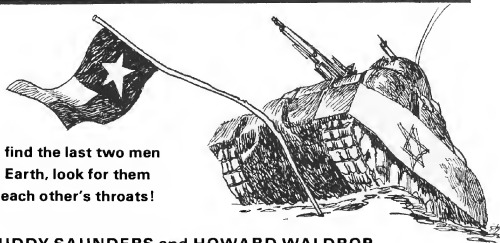
Dr. Andrew Stein, the city's chief medical examiner, announced today that death was due to internal trauma, caused by a sharp object. The wound indicated that the weapon was flat, rather than tapered, and came to a point at a 90° angle.

Although Mr. Martin died in front of a large number of witnesses, no trace has been found of a weapon of any description. Anthony Carp, chief of detectives, stated that his men had uncovered several leads, which they were following up, but he could not yet state publicly what these leads were.

Dr. Stein further stated, "Throughout the entire extent of the wound there were traces of tissue paper. We do not know how this tissue paper got into the wound or how it managed to cover virtually its entire surface, but we do not believe that it could have contributed in to Mr. Martin's death."

Mr. Martin will be cremated at a private ceremony on Friday. He is survived by his wife, Margaret, 47, and two children: Linda, 12 and Thomas, 9. ★

AVOICE AND BITTER WEeping



To find the last two men
on Earth, look for them
at each other's throats!

BUDDY SAUNDERS and HOWARD WALDROP

WHENEVER Sol Inglesien sneezed the sodden gray cotton of his brain was jammed more tightly into his skull, causing dull pain to radiate from his mind. When he coughed, which was—thank God—a more infrequent occurrence, invisible pliers locked on the bridge of gristle between his eyes, then twisted, exacting a sharp throb. The two pains, that of sneeze and that of cough, were diabolical complements, the one making him suffer if the other failed. Together they rendered the lesser body aches—some hundred to a thousand—impotent.

Sol turned his head slowly. The movement, slight as it was, increased the thudding tempo in his brain. The tank found an irregularity in the terrain, bounced as only fifty tons of steel can do, then re-

sumed its jolting rhythm. Sol pressed hands to head. He wanted to rip off his ears, let his swollen brain spill forth to relieve the congestion.

The spider legs of pain stopped dancing, trudged back to the center of his mind to become the familiar ache. Elmo Shireet, big-boned and blunt of feature, glanced back from the forward drive control and grinned sympathetically. His words swirled in frosted air.

"Sorry, Captain. That shell crater slipped up on me."

Sol blew a chill vapor of his own, a frozen curse at its core. He managed a weak smile. Dunklebloom, the gunner, rummaged in the aid kit with his artist's hands, produced a bottle of brown glass.

"Here, Captain. Try these."

Sol consulted his watch, then washed the tablets down with water

from an old grimy paper cup.

"Cold, Captain. You got a cold. No one ever found a cure for that."

Sol fumbled for a tissue. "I had a cold yesterday, Maurice. The way I feel now it's got to be pneumonia."

Isaac Wolfsohn, laser engineer, took his eyes from the cupola periscope. Sol wondered how a boy so young could produce a beard so thick. It was burgundy and leonine, but carefully trimmed. A rare and true color, thought Sol.

"Jeep coming up fast from behind," said Wolfsohn. He returned to the periscope. "He's waving. Wants us to stop."

Sol clutched the shortcom. "Lock 'em up, lads. We've got company."

The order was not formally phrased, did not need to be. Sol's crews had been with him almost a year. They had an unspoken understanding. That, and the fact that they had ceased to give a damn about too many things, explained their efficiency as a fighting unit.

With a gathering of linked steel the squadron halted on the tar-chinked highway. Sol climbed wearily past Wolfsohn, popped the cupola and ascended into withering heat. He rested thinly fleshed forearms upon the rim of the hatch and waited.

The jeep stopped fifteen paces away, just off the concrete. Dust drifted menacingly toward Sol's tank. As it arrived, Sol sneezed,

coughed, then wished he were dead.

When the pain retreated with the dust and the coughing, Sol made out a form standing rather stiffly by the Centurion's left skirting plate. He rubbed away tears, looked again. Sure enough, someone had removed himself from the jeep and come forward with the dust.

Sol's red eyes focused on the courier in time to see a crisp salute. He returned the salute with one of his own, the kind a dead fish would make if it were in the army and felt as bad as Sol.

Embryotic warrior, thought Sol, fresh out of an academy and still ingenuous enough to take orgasmic pleasure in being a soldier.

The embryo's eyes moved surreptitiously over Sol's modified uniform, further altered by dirt and wear. Sol knew the embryo's thoughts, his uniform correct, neat, Sol's: *A mess! A perfect mess! No wonder we haven't won!*

Sol laughed mentally only because he did not want to antagonize the pain in his skull. If wars were won by the best-dressed armies, generals would be made in Paris boutiques and armies would mince rather than march to victory.

"Sir, you are Captain Inglestien, commander of Squadron C, Eleventh armored Regiment, code Bagel C of Big Bagel?"

Sol doubted the courier would appreciate a humorous answer so he contented himself with a nod.

Dust coated the made-in-an-academy soldier's face like cheap mascara. Sweat was making it run.

"Then, sir, these are your orders."

Sol received the brown envelope with disinterest. The courier allowed himself a grimace of contempt, made another curt salute, very precise, as if to say, *This is how it's done, sir!*, and marched back to the jeep. The jeep roared, pumped gravel and dust.

Cursing aloud so that his head began to smolder, Sol slammed the hatch cover before the red dust could reach him.

THE Centurion's air-conditioning continued to manufacture ice cubes malignantly. The outside temperature of one hundred plus degrees had begun to clear Sol's head. But now, back inside the fifty-ton micro-environment, a viscous fluid welled between Sol's temples.

He kept his voice even as he glared at Dunklebloom. "First time we stop, Maurice, you fix that damn airbox or, by Solomon, I'll rip it out, throw it in front of the *Jehovah* and tread it to iron pulp!"

"Right, Captain," answered Dunklebloom, grinning lamely. "First chance I'll pop 'er and find the bug."

"Right, Captain," answered Dunklebloom, grinning lamely. "First chance I'll pop 'er and find the bug."

Sol opened the brown envelope. The orders could only lend detail to a general fact already known.

His voice squawked over the shortcom to the eleven Centurions drawn up behind the *Jehovah*: "Roll!"

Early the following morning Charlie Bagel Squadron reached a river—the river—after veering from Highway 81 and dusting a mile east over a dirt road recently gouged out by engineers. Two armored squadrons were already there, along with an uncertain amount of ordnance, artillery and support auxiliaries. All formed an iron tangle along the northern bank, waiting to spill across the muddy river.

A traffic MP, trying hard to blow the bean out of his whistle, waved Sol's squadron to a parking zone of red sand. As the *Jehovah* locked tread, Sol flipped the cupola hatch. Clambering through the opening, he slid across the olive turret cover and dropped to the sand.

"Why the jam?"

The MP tucked his whistle into a pocket, shook sweat from his nose. "Guerrillas. Slipped in last night. Blew the pontoonie half to heaven."

"How long before she's fixed?"

"Engineers say noon." The trafficker pointed. "See. Got new 'toons strung to the other shore already. Be ready now except they're having to improvise. Those guerril-

las did a pretty good job there.”

The MP darted away as a dozen personnel carriers rattled on the horizon formed by the northern embankment. Sol turned to his crew.

“Spread the word. We’ve got till noon. Seems guerrillas put a fly in the enginners’ soup last night.”

Crews spilled from iron wombs. Most made for the red water—a few sprawled in the long shadows of their tanks.

Like a father, Sol watched his crew join others in the sluggish river, some whooping and yelling, twenty with arms linked in the dancing oval of a *hora*. Each man had suffered and had seen his dreams broken. Their very world had nearly passed into the oblivion of radioactive dust. There was much they wished to forget.

There was much Sol wished to forget. Members of his family had been in the Jewish Legion during World War I, serving with Field Marshall Allenby and the Zionist leader Vlakimir Jabotinsky. His grandparents had died in 1938 when Arabs burned and looted Jewish homes in Haifa. Two older brothers and an uncle had been lost to the El Alamein push of World War II. When Israel had become a state Sol’s parents had been there to rejoice, but not for long—Egyptian guerrillas had seen to that. At age three Sol had found himself alone and he had been so ever since. In the wars and protracted

attritions which followed—and of these there were many—young Sol had had his revenge, again and again. War became like a wife, sometimes loved, often hated.

MYRA Kalan returned Sol’s thoughts to the present.

“How’s the cold?” Myra’s voice was soft, dulcet, hardly the voice of a tank commander. Yet Myra and her lady crew had taken their *Blessed Mary* into a dozen man-created hells.

“Fine. Dunklebloom performed surgery on the air-conditioning. That helped. Head’s beginning to clear.”

Myra smiled. Sol looked away, feeling empty and alone. Two months earlier they had slept together. Since then there had been little time even for quiet words and affection. Myra was a thing of beauty in a world which was systematically destroying beauty.

“Why so sad, then?”

Sol shrugged. “Guess I was born frowning.”

For reasons never clear, Charlie Bagel was the first cleared for crossing. The *Jehovah* raked onto the unevenness of linked pontoons and rattled toward the southern bank. The rest of the squadron filed behind, spaced so as not to overburden the temporary bridge with a massing of fifty-ton weights. Where the river made a leisurely turn a mile to the west, the 81 truss bridge lay black in the red water

like a collection of broken spiders.

Sol frowned. *If I forget thee, O Jerusalem, let my hand forget her cunning.*

The land south of the river was much the same as that north: red earth, sand, scablike vegetation on the dry soil, sparse grass, weeds brittle with midsummer heat. Through the periscope, Sol watched the Red River and Oklahoma receding, while ahead, the plains of Texas opened in arid infinities.

The squadron passed southeast, then due south. The terrain changed only as the sun fell. As yet Charlie Bagel had encountered no resistance. In fact, not a living Texan had been seen, if the numerous jackrabbits were discounted.

Shireet tapped a point on his Fina highway map. "Nocona, two miles, junction highways eighty-two and one-seventy-five. That the place?"

Sol nodded. "We blow their communications, give 'em a scare, then ghost south roughly parallel to eighty-one."

Wolfsohn consulted his badly thumbled *Backpacker's and Camper's Guide to the Southwestern States*, then a thinner dog-eared volume, *A Tourist's Guide To Texas*, copyright 1982.

The laser engineer clucked in triumph. "Nocona! Hum." After a moment of study: "Doesn't say much about the place except it's famous for its cowboy boots."

Charlie Bagel Squadron met its first resistance on rolling pasture outside the little town famous for its boots. Lank cattle fled as artillery and tanks which were museum pieces boomed at the Centurions from low hillocks. Sol's squadron fanned, returning fire with their lasers. The battle was one-sided, abbreviated. Tex artillery was broken, every tank smashed. Still, Sol lost a tank and its crew—a disappointment. He would miss that tank in the future, need it sorely. This Texas force had been ill-armed militia, a part of the converted Texas Department of Public Safety, now the Public Military Defense Force. Farther south would be the Retex heavy armored units, few in number, but armed with modern ordnance.

The sun cracked like an ocherous egg on the horizon. Sol's column, minus a Centurion, left Nocona with its skeleton crew of citizens who were relieved to see the Israeli mercenaries on their way.

SOL grinned wryly as he examined his new cowboy boots. His were simple black, Dunklebloom's a tan, Shireet's tan, Wolfsohn's ostentatious red. Back along the string of Centurions there were other pairs: more black, brown, tan, and others white, buff, green, red, two-toned, a few unbelievably garish.

That's my squadron: a mirror to

the world's madness, thought Sol, waxing philosophic now that his head had cleared. And little wonder. Couldn't the World War of '92 be traced back to fanatics in Eire, backed by an eager China? Led by one monumental fanatic who had believed himself Finn MacCoul reincarnate, they had conquered the north, driven out the Protestants and eventually threatened Britain herself. What Sol never quite understood was how this mushroomed into thirty nuclear minutes of Sino-Soviet-Anglo-American combat followed by a seven-year mopping-up operation.

Sol studied the steel juggernauts crawling in the *Jehovah's* wake of brown dust. Originally the squadron had been composed of Israeli mercenaries, their tanks christened with names like *Wrath of Jehovah* (Sol's Centurion), *Angel of Death*, *Zion*, *Aleph*, *Ben Gurion* and *What's Sadai?* But in the first abortive invasion of Texas, nine months before, three tanks had been lost. As replacements, Sol received new crews, Myra Kalan and her female mercenaries among them. Regional Oakies composed the second crew. The third was made up of individuals of little religious experience. Respectively, they had named their Centurions *Blessed Mary*, *Jehovah's Witness* and *Damn it*.

The War had decimated America and had taken a terrible toll in most other nations involved. It had

not ended, but simply degenerated into more primitive styles as the combatants exhausted sophisticated weapons systems. Nuclear weapons had been the first to go in a quick flash at the beginning of '92. These nuclear bombs, the few retained after the falsely reassuring disarmament of '88, had destroyed the world's facilities for producing new bombs. The chemical and biological attacks that followed did to the people what the bombs had done to industry. With its mass of people all but obliterated, with much of its industry broken, America's specialized economy collapsed. The world followed.

Ten years later few aircraft were operable. Even the army had difficulty replacing weapons as they were worn out or destroyed. The remaining factories lacked skilled scientists and a sufficient labor force and were mostly useless.

Sol's unit was among the last possessing modern tanks. When the remaining heavy stuff wore out, the battlefields would be given over totally to infantry just as, already, aircraft had met the dodo's fate.

The United States, Russia and their allies continued to pursue the war with China and India. The two factions resembled men who, having wounded each other fatally, crawled together and thumb-wrestled even as they bled to death.

Israel had suffered less physically than many of her neighbors and—along with a few other small

nations not targeted for early annihilation—to some extent had risen to the status of a world power. But the war madness which gripped the world had reached into her, drawing her men to Earth's corners where they fought as mercenaries.

After Texas' secession from the Union, Sol had found employment in America, a nation with more wars than men. The Lone Star State had declared its neutrality. The United States Government had other ideas, hence the war with The Second Republic of Texas.

A quote came to Sol's mind, Jeremiah 15:31—or was it 31:15? *Thus said the Lord: a voice was heard in Ramah, lamentations, and bitter weeping; Rachel weeping for her children refused to be comforted for her children, because they were not.*

Who will weep for man when man is not? wondered Sol, rubbing the hard wedge of his nose. Rachel is dead. Who will weep?

AT DUSK, near a town called Mallard—a small, round hollow dot on the Fina map, Charlie Bagel formed a laager around an abandoned barn. In darkness watched over by a billion stars and as many sad ghosts, crickets sang a dirge. Far away a coyote cried the moon up out of the east. The men slept or took their turn at the watch. Sol lay wakeful, thinking of Myra sleeping by her tank twenty yards away. Earlier they had talked of

the War's end. Of a time when they might be together. Of taking advantage of the generous land grants America offered her mercenaries. Of marriage. All well-intentioned lies.

Before dawn the column rolled south. The sun rose orange and bloated in the angle-thickened atmosphere, sent shadows running west over undulating plains.

Thus far an accident of fate had kept them from further contact with Retex armor. The population, upon seeing the American stenciling on the armor and hand-painted stars of David, melted into the rubble of their homes. They did not care for the Yankee-Jewish invaders.

Sol began to wonder if the Texans had any intention of resisting the invasion. Was it possible that Tex strength had been overestimated? Sol was dubious. The cowboys, like the U.S. Domestic Force, had only limited armor. With Texas so big and communications so poor it was necessary for both sides to maneuver until they collided at random like flying atoms. Because Charlie Bagel had not yet collided was no reason to discount the inevitable.

Shireet spilled words like pebbles. "Old man up ahead."

Sol pressed his eyes to the command periscope. A hundred yards ahead an old man ascended a grassed elevation topped by a splash of fallow-colored trees.

"Big Bagel's been too quiet on the longcom," said Sol. "Stop and I'll ask that native if he's seen anything."

"Sure thing, Captain." Shireet touched the track steering control and veered appropriately.

Sol's dry voice went into the shortcom. "Short stop, lads. Fifty yards."

The *Jehovah* drew up a few yards from the man, its Rolls-Royce Meteor idling like a hive of iron bees. Sol thrust his head and shoulders from the coolness of the Centurion.

The old man seemed a holdover from the Jurassic, dressed in a straw hat and overalls five sizes too large, like sails empty of wind. His skin was wrinkled, brown like a persimmon too long in the sun. At least a hundred years had siphoned him dry of all but a spark of life. That spark had taken refuge in his eyes, the best place. It meant there was still a mind working in the mummifying shell.

"*Shalom*," said the ancient, levering up an arm like a stick and a hand like a dry leaf.

Sol blinked. "You Jewish?"

"Nope, ain't nothin' now, but never was a Jew." He paused, spat tobacco from the corner of his mouth. "Knew a Jewish fella once, though. Owned a dress shop in Slidell. He allus said, 'Howdy, Jake,' and I'd allus say, '*Shalom*, Phil.' He's been dead a long time now." The old man nodded toward the column of tanks. "Boy, your con-

traptions shore are givin' my field hell. Don't them things work on the roads?"

Sol smiled. "Sorry, sir. I wasn't aware this field was under cultivation."

"Ain't."

Sol laughed, a thing he had not done lately. "Everyone else ducked when they saw us coming. You're not afraid?"

It was the old man's turn to be amused. "Lord, no. I ain't got nothin' you fellas 'ud want. Sallie May ran off Tuesday with a slick in the Highway Patrol Corps. All I got left is ma and a few taters and, if you're smart, you'll run off with the taters."

Sol tossed the old man two packs of tobacco, a form of wealth, fleeting as it might be. "Keep your potatoes and your woman, too."

The old man cranked himself over, picked up the smokings. "*Shalom*, boy. Thank ya."

Sol gestured at the surrounding terrain. "Seen any Tex armor?"

The old man made an oblique shrug. "Ain't seen a thing. Been fishin'." He nodded toward a stock tank at the bottom of a draw a mile away. "Perch and catfish bitin' poorly. Did better yesterday when we had a little shower in the mornin'. Perch like to feed when rain tickles the pond."

Sol nodded. "Good fishing, sir."

THE old man became a pleasant memory wedged between many

that were bad. The column rolled through farmland between Rhome and Justin, came finally to the suburbs of the megapolis of Dalworthington, with Fort Worth anchored in the west and Dallas in the east. A vacant thing, sprawling traps for dead dreams, the suburbs spread on every quarter.

The Centurions meshed over asphalt streets not meant to bear the weight of juggernauts, tore across lawns of rank grass, beat down fences and rusting clotheslines.

"Something coming in," said Dunklebloom.

Sol took the longcom earphones. Big Bagel had bad news for her iron children.

Sol removed the earphones and handed them to Dunklebloom. "Squadrons north, northwest and northeast of Dallas are having it rough once they draw within twenty or so miles of the city. We expected Tex armor, but they're also getting heavy artillery on their heads, the sort Intelligence said the cowboys lacked. We're losing a lot of tanks, being mauled. Wherever the Texans got their artillery—it was a neat trick."

Dunklebloom blew a breath between a gap in his teeth. "If they break the main thrust into Dallas we'll be stalled."

"Exactly," snapped Shireet. "Those cowboys aren't dumb."

Sol peered at Shireet's map of Dallas. "Well, let's try to be smart, then."

In view of the available intelligence, Sol decided the Tex artillery must be located somewhere on Dallas' north side, possibly in the suburbs of Farmers Branch, Richardson or Garland. It might be possible then to come upon the emplacements from the rear and knock them out in a blitz.

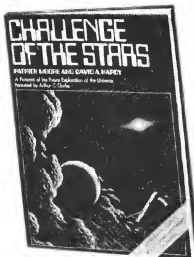
"Remember," admonished Sol, speaking into the shortcom, "surprise will be our only advantage, so keep your eyes open. The ploy washes out if we blunder into a defensive force before we're within range."

Moving east into Dallas, the column crested a hill of black earth and shattered trees. Westward lay a vast charcoal radius where defense industries had once been. There, thought Sol, God stubbed out his cigarette. But he knew it was only an ICBM pock. He had seen them in the past, was destined to see more.

The column scrabbled down a twenty-degree grade, churned across a six-lane avenue, sought narrow side streets where there was less chance of detection. Grass grew yellow in road chinks. The Centurions climbed a talus formed by a fallen Sears store, then spanned a ringent crevice where a gas main had burst through the pavement.

In the summer-hot channel of a street Charlie Bagel halted. To the east and a little north the fortissimo of heavy artillery was plain to

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hear, but blocking the view were several massive warehouses with windows like gouged-out eyes.

"We're here," said Shireet, indicating the map. "Singleton Boulevard. Those guns are about a mile away, probably mounted on railway cars."

The column advanced until the thunder of heavy guns shook the very streets. The Centurions halted. Sol, Dunklebloom, Myra and another tank commander armed themselves with M25s and 9mm submachine guns and set out to reconnoiter.

They turned a corner, then another, advancing with exquisite caution. A third turn revealed open ground, a levee beyond—the Trinity Waterway, completed in 1984, reaching from Galveston on the Gulf to Houston and finally to Dalworthington.

Beyond the earthen levee rose a complicated scaffolding. The sound of cannon fire came from there, together with gouts of smoke and fire.

Dunklebloom gasped in disbelief.

They zigzagged across the open ground, climbed the earthen slope to a stone house which afforded cover. A ship was anchored in the Trinity, a warship.

"A cruiser," breathed Myra.

"The *Judge Roy Bean*," muttered Dunklebloom.

"She's a heavy cruiser," said Sol. "One of two the cowboys com-

mandeered at the time of the Secession. We've found their 'phantom artillery. Those twelve fourteen-inch guns have quite a reach."

THEY retreated down the embankment, returned to the waiting tanks. Sol leaned against the *Jehovah*, breathing hard. He spoke quickly as he outlined a plan for assaulting the cruiser.

"There's a quarter-million dollar bounty on the *Bean*," Sol finished. "We sink her and it's ours."

"How'll we prove we were the boys who sank her?" asked an Oakie, his mind working like a piggybank.

Sol laughed sardonically. "They can check the markings on the iron coffins we leave behind."

Crews were swallowed by their tanks. The Meteor Mk. 4Bs revved, roared. The Centurions crawled forward in graceful lurches, one hanging back as rear guard. As the squadron crossed the open space between the buildings and levee, it fanned. Two tanks veered south to guard a bridge approach, should armored units attempt to cross the Trinity to lend assistance to the *Bean*.

Eight tanks labored up the dike's thirty-degree outslope, found the crest, then locked track and skidded down the concrete inface in a shower of steel sparks. Even as the squadron slammed to a stop at the base of the levee, just a few feet from the muddy Trinity, their laser

cannons opened up on the *Bean*. The cupola-mounted 20mm cannon rattled, raked the cruiser's decks, chewing khaki-clad gunners racing along the catways.

The *Bean's* fourteen-inch guns roared angrily, but futilely—none could be depressed low enough to reach the tanks. But the vessel's lesser guns and laser mounts swiveled with sickening speed. Black wads of macerated earth began to rise along the tank-clotted bank. Dowels of livid energy laced the air. A five-inch shell found the *Ben Gurion*, spread her fifty tons on the air like torn paper. A laser finger detonated the *Aleph's* fuel. Her cupola, like the top ripped off a beer can, rose sixty feet into the air, pinwheeled, fell steaming into the deep-dredged Trinity. The *Damnit* erupted in a final curse of flame, filled the air with shards of steel. Like the inside of a crematorium, the *Witness* blushed red. The Oak-

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ies died screaming, but no one heard.

Shrouded in a pall of dense smoke, the remaining Centurions continued to beam energy into two predetermined sections of the *Bean's* hull. Plating began to peel like scorched paint, twist and warp in an agony of blistering steel. Near the aft section the hull opened like a bloody gut.

The *Jehovah's* whining laser found the aft magazine. The remaining Centurions were lifted almost clear of the earth as the cruiser detonated with a sound like the slamming of hell's gates. Lesser explosions followed. Then deadness. Silence.

The *Jehovah* limped up the embankment, slid down the far side, paused. Sol hauled himself from the tank. Wolfsohn followed. They climbed the levee.

Blowing and steaming like a great fish, the *Bean* lay half-submerged in the Trinity, her keel resting against the muddy bottom. Survivors crawled upon the shattered superstructure like dazed ants.

Wolfsohn slapped Sol's back. "We did it, Captain. We proved eight Davids can take on Goliath!"

Sol gazed at the five burning Centurions. The fifth was Myra's. Myra dead. Dark hair and brown eyes and beauty in a face and in a soul. Gone.

Sol returned to the *Jehovah*.

The remains of Charlie Bagel

Squadron rolled into the canyons of downtown Dallas. With fatalistic cynicism a crew sang the *Hatikva*. Several Highway Patrol officers tried an ambush with M2s, grenades and a 3.5-in. rocket-launcher. The launcher was pasted to a wall. Sol raked a mall with the 20mm cannon, killing three of the black-clad officers and one naked statue. The Centurions rolled on, unopposed. Sol remembered the old fisherman's daughter. He wondered if he'd killed Sallie May's fella, wondered if she'd cry if he had.

The Achrit Hayamin has come to earth. But the last days would not be spent in perfection, at least not in the sort of perfection envisioned by the prophets. Man moved rapidly toward perfecting himself as a machine of destruction. Eventually that perfection would be realized when the last two men found each others' throats.

In an intersection where dead signals dangled ludicrously, two antiquated Pattons waited like iron toads. The *Jehovah's* turret rotated on its traversing ring. The muzzle lost degrees of elevation as Dunkleblum aimed. A Patton blinked fire. The Centurions answered with knives of lightfire. The blood-lust rose in Sol, stronger than sex, stronger than love.

A part of the intersection jumped into the air, geysering concrete. *Chefzi ba*, thought Sol, *I have all that I desire.* ★



GALAXY BOOKSHELF

Theodore Sturgeon

ANYONE for UFO's? All of the arguments—and almost all the material for more arguments—are in Cornell University Press's *UFO's—A Scientific Debate*. Edited by Carl Sagan and Thornton Page, it consists primarily of the papers submitted to a symposium on unidentified flying objects held in Boston in December of 1969, by the American Association for the Advancement of Science. Many of the papers have been revised, expanded and updated for the book. There is also a good deal of additional material, appendices, photographs, charts and diagrams, together with a good index and bibliographical listing. A good, careful, meticulous job, full of healthy controversy and quite lacking the hysteria and misled religiosity so often found in

discussions of the phenomenon. For phenomenon it is—not so much the UFO, but the “flap” on UFO's as a socio-psychological, historical event, which serves, if properly used, as a potent and useful data-bank for the examination of our remarkable species. Perhaps only in criminology and law is there such a mother-lode of case-history, testimony and interpretation as exists in the microcosm of “UFOlogy,” but the latter has the useful character of short span and sharp focus—in a word, spectacularity. And as a psycho-social phenomenon it has one more thing: the intrusion of the Other, hazy and perniciously illogical though it might seem—yet it forces us to regard ourselves and our works not by standards established by our works and our-

selves, but by the Other . . . something different, something outside. John Campbell used to challenge his writers: "Write me a story about a being who thinks as well as a man but not like a man." Few writers have succeeded; virtually none of the saucerian extremists have even come near. The Sagan/Page book is, like Scripture, the voice of many different throats, and to the attentive reader has no single thing to say. Project Blue Book was a success, a failure; Condon is a saint, a devil; the Air Force is above-board—the Air Force suppresses, represses, and Has Secrets. The contributors to the Symposium are without exception serious-minded people and not stupid, which makes their occasional, diametrical opposition so fascinating. Get this book. If you can't get it for yourself, plague your local library to put it within your reach. I say again: it is not necessary to care about UFO's per se to derive value from this book. It is only necessary to care about what people think they see, which is only another way of caring about what people are. Cornell University Press, \$12.50.

HERE are a couple of "peripherals" for you. *The Enigma of Reincarnation*, by Brad Steiger (Avon, 95¢) is a somewhat less than detached presentation of case histories and ratiocinations on the fascinating subject of having been born before. Some of these seem to fall rather more into Dr. Prince's "multiple personality" territory than into the occult—and some of the documentation of

the ground rules is more a presentation of what someone said than an exercise in reason. Interesting, though, on two counts: the subject itself, and the fact that so many people are devoted to it—see the above remarks on UFO's. The other recent peripheral comes from none other than the tireless anthologist Roger Elwood—this one is his very own book. It's about satanism, witchcraft and God, is called *Strange Things are Happening* (Family Library, 95¢) and is one of that uprush of church-oriented books we begin to find in supermarket racks next to—and confronting—the Gothics and the raunchies. No matter what your feelings about his basic thrust (that "faith in God and His Son" is "the only real alternative to Satan, his demons, and the 'strange things' of our past and present") you'll find it an interesting fast course in the history of witchcraft and the occult—and a startling glimpse at the new explosion of their practices in modern life. There's a compact but excellent bibliography, too.

CULLING the length and breadth of speculative fiction as I do affords a number of peak moments, explosive discoveries. Imagine finding for the first time Delany, Disch, Lafferty. I can recreate in a blink the impact on me of my first exposure to D.G. Compton, Barry Malzberg and Elizabeth Saxton. Well, here's another one. Richard E. Peck in *Final Solution* (Doubleday, \$4.95) has written a yarn of the "if this goes on" category which will curl up your toes

in delight. Coupled with a swift, bright narrative style and a coruscating sense of humor is a sharply serious social commentary, generally encompassing the immediate future but most specifically dealing with the University. Take current trends in higher education—the lowering of entrance requirements, the increasing voice of students in curriculum and administration and the purse-power of Government—and extend, extrapolate them. Mix in a lot of laughter and an underlying sense of respect and responsible concern for education per se, throw in a fistful of genius for characterization (and caricature) and a fine feel for language, and you have a rough idea of Richard Peck's recipe—and clear notice to watch for this name again.

SF'S bookish bulldozer Sam Moskowitz is at it again. With heavy horsepower and a lowered blade he has excavated a boxful of well-buried gems and presents them in *Horrors Unknown* (Walker, \$5.95). I call them gems; Sam calls them masterpieces. The distinction lies, for example, in the appearance here of Ray Bradbury's very first story, not once but twice (the second a rewrite of the first with help from Henry Hasse). Masterpiece it is not—gem it most certainly is, in the sense of its being a literary rarity. But the book does contain one authentic masterpiece: C. L. Moore's very early, exquisitely written *Were-woman*, one of the most spellbinding tales ever and worth the price of the book many times over. Warm thanks to the

Starting in the September GALAXY . . .

RENDEZVOUS WITH RAMA **ARTHUR C. CLARKE**

His first novel since

2001: A Space Odyssey

On sale August 1

editor for the story's' renaissance—it was very nearly lost. The book also contains a story by (brace yourself) C. L. Moore, A. Merritt, H. P. Lovecraft, Robert E. Howard and Frank Belknap Long, Jr. There are others, notably one by Edwin L. Sabin, from the twenties, which reads like G.C. Edmonson at his best. The book has an introduction by Moskowitz.

SEX is here to stay—it's been in and with sf for far longer than the superficial surveyors (like Kingsley Amis) seem to know. But now it flowers and the inevitable has happened: two anthologies of sf/sx (if I may coin a symbol)—one of them reprints, one, originals. I shall beat one of them heartily over the head and ears, even if it does include one of my stories. *Strange Bedfellows*, edited by Thomas Scortia (Random House, \$5.95) contains some true landmarks—like Farmer's *Mother* and Chelsea Quinn Yarbro's *False Dawn* and a long-lost Boucher—and a good deal more of excellence. My cavil is the editor's arrangement of the stories into groups absolutely guaranteed to deflate the most skilled auctorial efforts at structured surprise. It should have been enough that the book itself is a category (it's even subtitled Sex and Science Fiction) but Scortia has gone and grouped sado-masochism stories, homosexual stories, bestiality stories, and so on, so that if (as is usually the case) the writer tried to time his punch or explode his revelation, Scortia has seen to it that he is defeated. It would have

been far better if he had extracted the two strongest yarns to open and close the book and shuffled the rest like cards, letting them speak for themselves. I guess what makes me maddest is that most of his selections are very good indeed.

The other one (*Eros in Orbit*, Trident, \$6.95) is edited by Joseph Elder and is quite something else. Ed Bryant with an edged and hilarious commentary of future sex ("They've even got a model that ejaculates flavored yogurt!"); Gordon Eklund and Thomas Scortia with potent horrors; Pamela Sargent with a finely wrought and most tender story about cloning; Jon Stopa with what is either a comedy or a nightmare; one of Barry Malzberg's sex-ridden, or rid-sexing astronauts and others, all enjoyable-to-good. The book makes a nice package and this is the first appearance for all of the stories.

Many times I have been asked what early reading influenced me most. Of the most potent of those forces one novel has been out of my hands ever since I was in high school. I love that book with an abiding passion as a perennial evocation of delight and humor and beauty. You might imagine my pleasure on opening a package the other day to find Lord Dunsany's *The Charwoman's Shadow* in a handsome paperback from Ballantine (\$1.25). My warmest thanks to the publisher and Lin Carter (who did an introduction).

Hey—be sure not to miss *The Best from If* (Award, 95¢). A solid antho. ★

On the moon, as on Earth, a misstep can mean death. And the question remains—whose?

LUNA ONE

ERNEST TAVES

I

Let us buy the wine! Let us drink together . . . we will drown the sorrow of a thousand generations!

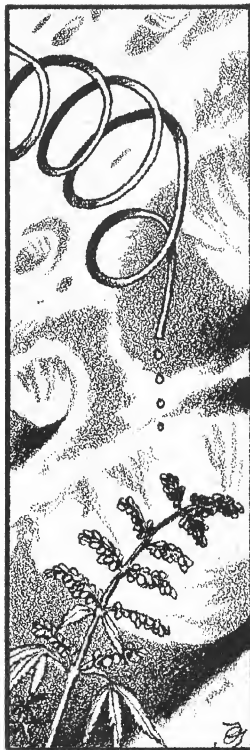
Li Po, c. 750

I STOOD there, looking into the night through a slanted transparent triangle of Mylarform, whose center was precisely (though coincidentally) at eye-level. My eye-level, that is. It was somewhat above that of Carole, my wife, who stood at my side.

"What are you going to do?" she asked. "Will you tell Winter or will you not?"

"I don't know yet. I have to think."

I looked out into the night, seeking wisdom, but didn't find it. Luna One is in Mare Imbrium, near Era-



tosthenes, a crater as familiar to me now as Mount Monadnock had been on Earth. We're in the middle of the lunar night, though, and I can't see my crater. We're also in the middle of the local night and we should be in bed.

So we stood there looking up at Earth. We—Carole and I and The Chairman—have a private place on the twelfth level of Luna One. Private with solid walls. Not as private as Eli Winter's, but he is the mayor, while I am but his right arm. The executive mayor, yes, which gives me more than a little clout, so we have solid walls and, as they say, a view.

The view was of a crystal-clear sky (what else on the moon?), with blue-green Earth up there. And she looked winsome—the trouble didn't show from here. Earth was winsome like a battered old lady, wrecked by time and careless use, seen through dim lenses from a great distance, only the fundamental form showing, lacking detail of pore and wrinkle.

The Chairman? Ah, so. The first dog on the moon, one of six. He is in all effect our son—or so it seems—a smoky-brown Pekingese, prideful of the wealth of feathers on his paddy feet. If Luna One is to be a permanent colony we must have our pets. Six dogs and six cats have come by rocket-propelled Ark to this improbable Ararat—male and female pairs of each of six subspecies. Of the dogs: Pekingese, Lhasa apsos and Cavalier King Charles Spaniels—the dogs had to be small. Of the cats: short-haired tabbies, Siamese and Manx. The plural of Manx, if there is one, is

something I don't intend to become involved with.

Carole grasped my shoulder, turned me to face her, and gave me a look I knew too well.

"You'll have to, sooner or later," she said. "And shouldn't it be sooner?"

I turned back to Earth. "I must think about it," I said.

The smell of this place came to me now—artificial, man-made, unnatural. Mostly one got used to it, like a freshman grows accustomed to the anatomy lab at medical school, but now and then that sterilized scent came back afresh, the olfactory cortex showing once more that it couldn't be taken in forever. The engineers and psychologists had provided a number of essences, including (it was said) some obscure pheromones, but you still knew you had air-conditioning. Nothing here to remind you of the smell of a newly mown field of hay. Most of the colonists had never known that vanishing smell, but I had. No scent of Earth here on Luna One, right. But Earth being what it was—what it had become—that was not a total loss.

"You've been thinking about it."

"Maybe I can take care of it myself. It's really not that big a deal, is it?"

I'd discovered the first illicit still on the moon—the first still on the moon, for that matter—and the first attempt to grow *Cannabis sativa*, and both of these activities were altogether prescribed by our ground rules. Carole thought the still and the *Cannabis* endangered the colony. I knew they were illegal, but I doubted they were much

of a threat. Still, I couldn't easily decide what to do. We, the colony, were a prototype, designed to see how things might be when we left Earth and carried our virtues and vices, weaknesses and strengths to other places where we might or might not survive—assuming arrival in the first place. I thought Carole was making a foothill out of a molehill. But there lies deep within me an analog of a Mohorovicic discontinuity and I'm grateful for its presence, since it usually tells me when things are going too far.

I touched my wife, looked straight into those blue-green eyes and said, "I will think about it—I will—but now it is time to go to bed."

And we did so. As we were going to sleep The Chairman heard something out there, somewhere beneath the dome, and lifted his head about an inch and offered a tired *woof* to whatever it was. He set a lot of store by face, he did.

ONE of the obvious stepping stones in man's penetration into space, beginning with Mercury, Gemini and Apollo, was the establishment of a permanent lunar colony. There being no end to the fouling of Earth, we had to go someplace. And we weren't ready for the other planets close to home (even if they could support us), let alone the stars.

Our penetration of space didn't begin with the Mercury program, of course. There were V-2's over London before that, then Vikings, Sputniks and other interesting hardware. A thorough reprise, however, would take us

back to China and rockets in the Yuan Dynasty, when a nameless (to us) Oriental seeker after knowledge combined saltpeter, sulfur and charcoal into an inflammatory mix—the propellant whose energy thrust the first fireworks into the sky.

But that's stretching things. So, in the technological world of more or less now we go back to Robert Hutchings Goddard, standing in the Massachusetts snow in 1926, firing up an awkwardly supported apparatus, the first liquid-propelled rocket. This device ascended some forty-one feet in a gentle curve before entering its geometrically and physically ordained return path to the Massachusetts field, into which it fell with a no doubt satisfactory *thunk*. And, in due course that rocket had led, as one thing does to an unpredictable other, to the moon.

The establishment of a reasonably permanent lunar base would be much facilitated, to say the least, by the presence of a breathable atmosphere, but that formidable accomplishment would be a long time coming. In the meantime, then, back to the dome. And—for a permanent colony—a dome whose size, construction and engineering made the simple habitations of the Mayflower missions look like children's toys, lying abandoned and forgotten in Mare Nectaris and in Tycho—the boys and girls having lost interest and gone elsewhere to play.

A dome meant to house 568 people (men, women and children) and twelve animals (dogs and cats)

upon the lunar surface posed an array of problems of dimensions the first dome designers, those of the Mayflower missions, hadn't had to deal with. There were options, however, though only two. The first domes on the moon—for the early, temporary colonies—had been of Mylarplex, the dome prefabricated on Earth, carried to the moon and there inflated with an oxygen/nitrogen mixture into the approximate shape of a hemisphere. Those domes had worked, too, but in the early missions they had had to work for only a few people—eleven, for example, in the case of ill-starred Mayflower Three, and that had been three more than Mission Design had called for.

For the first really serious attempt to survive indefinitely on the moon something larger—and by more than an order of magnitude—was required. There were two possibilities: an enlargement of the prototypical Mayflower dome, preserving the general concept of those early structures, or a geodesic construction, *à la* Fuller, of solid triangular sheets of lightweight material, which could be transparent, opaque or anything between. (A bewildering variety of force fields had been proposed to obviate the necessity for this cumbersome construction, but without exception they had remained on their respective drawing boards.)

In the end the geodesic dome had won over the Mayflower prototype because the psychologists foresaw, accurately or not, that the colonists would feel inse-

cure beneath a very large dome constructed of such apparently flimsy stuff as Mylarplex. This view had been supported by the reactions of some of the colonists on the intermediate domes between the Mayflowers and the first permanent colony, Luna One. The psychologists and psychiatrists had prevailed over the engineers, who were the ones who had to erect the structure in hostile surroundings. The engineers had wanted Mylarplex, but they had lost. They had lived, however, in smaller Mylarplex domes while erecting the mammoth geodesic structure, whose form was essentially that of a sphere projected upon an icosahedron.

“WHY five hundred and sixty-eight people anyway?” Frank Mei asked. This was an early conference in Houston.

“Not ours to ask. Ours to build the dome.”

“Within lousy budgetary considerations. Limitations, I should say.”

These are engineers and architects, sitting around a long table. They've been complaining about the budget and other aspects of life.

“Yes. Okay. Jonas, you're ready?” William (nee Wilhelm) von Neiman asked. Von Neiman was the chairman of this loosely structured body. Jonas Mills was liaison between Project Design and this group.

“Right, Bill,” he said. “Gentlemen—ah, and ladies—it's like this. Luna One is going to start off with five hundred and sixty-eight people. And twelve small animals,

dogs and cats. The population density must approach what Project Design considers optimal. I don't say be, I say approach." He looked owlishly around the table. "The density will be greater than that of New York City, less than that of Calcutta—nearer that of New York. For the referent year that density in New York was about thirteen thousand five hundred people per square kilometer. Or thirty-five thousand per square mile, imperial measure. For Calcutta, forty-seven thousand five hundred per square kilo. A hundred and twenty-three thousand per square mile." Mills looked up from his notes, hoping the figures weren't boring his audience. They weren't.

"Project Design decrees that the population density in the dome of Luna One will be twenty thousand per square kilometer, plus or minus no more than five per cent. That would be about fifty thousand per square mile. This is people-density. To the area required to produce this density fifteen per cent is to be added for the agricultural fields and a total of ten per cent more for life support, the recycling plant and the like. That is the basic position."

"How did they come up with this particular figure—twenty thousand per square kilometer?"

"They didn't say, but the figure is firm. The people-figure is firm, that is, within the plus or minus five per cent. The additional area, for fields and life support and non-people needs, is not quite so firm. But those are the figures you're supposed to work with."

Calculators were drawn from

pockets around the table. The soft tapping of keys was heard, and digits flashed in brisk animation.

"I have the figures, gentlemen. And ladies." Mills flushed. The others continued to make their own calculations. "Five hundred and sixty-eight divided by twenty thousand is point oh two eight four. So the floor area of the dome will be, people-wise, about a thirty-fifth of a square kilometer, or twenty-eight thousand six hundred square meters. Add the other twenty-five per cent and it comes to thirty-five thousand seven hundred and fifty square meters. Three point six hectares, something under nine acres. The floor will be circular. The diameter works out to about two hundred and twelve meters. These are rough figures."

Some of those at the table looked up from their calculators with scorn.

"The circumference is six hundred and sixty meters. Height at center of dome—which is somewhat flattened from the hemispherical—is approximately ninety meters."

Silence for a time, the pocket calculators verifying and refining these data.

"That's a lot of people to put into a space like that," Mei said. "Let alone the animals, the pets. And the hardware, the life support. How about space for recreation? I won't be there, but I don't think I'd like it if I were."

"Look outside the windows," Mills said. Knowing what they would see, they did so. A yellowish, sulfurous mess. "And remember, they'll be building *up* in the dome,

it won't all be at ground level."

"How high up?" Lucia Lehmann asked.

"The interior of the dome isn't our problem. Another team will be handling that. There will be liaison, of course. Your only responsibility is to build the dome. To answer your question, Lucia, they'll be building, inside, all the way to the top."

"How are they going to get up and down?"

"Ramps and ladders, I think."

"Any provision for—well, a small park, or like that?"

"I don't know. Provision for fields of growing crops, of course. That might be sort of the same thing."

"They know where we're going to put it yet?"

"Probably in Mare Imbrium. Nice flat terrain—and other considerations I don't understand."

There were other only partly relevant questions, but their real business was the dome itself and they talked about that for some time. And they thought of the people who would be living there.

"I find this quite depressing," Mei said as the group left the conference room.

"Yes. That's understandable," said Mills.

"A honeycomb."

"A maze."

"A labyrinth."

"I'm not so sure," said Lucia, who as a child had played elaborately with doll houses. "I think it might be, you know—cozy."

a throb in the background, but these are omnipresent and cease to have meaning as auditory stimuli, becoming simply conditions of existence. The colonists have mostly gone to bed. In the fourth level of Sector B, Antonio Scartia, thinking his wife asleep, creeps from the place they share. In this thought about his wife, as frequently about other such thoughts, he is wrong.

"Where are you going, then?" Gina Scartia asks.

"I have to talk to Charlie."

Gina raises her head and passes a hand through an abundance of tousled black hair. She doesn't know it, doesn't think about it, but she is as beholden to the hair on her head as is The Chairman to the feathers on his paddy feet. "If you're going to see Maria I kill you, all right?"

"All right, Gina. But I'm not—and you know it."

She gets out of bed for the moment, draws a shapeless garment over her shoulders, emphasizing the shapeliness beneath. "You are up to something, always up to something, same as on Earth. I don't know how you made this mission. But, as on Earth, I find out later what you are up to."

She watches her husband leave, he flicking aside the curtained partition to their quarters. "You will be back before an hour," she says to his departing back. "Or I hurt you, all right?"

The partition, drawn by lunar gravity, fell gently back into place.

RELATIVE quiet in the dome now. There is always a hum and

LUNA ONE was a honeycomb, a maze, a labyrinth, not an easy

place to move about in, and eighty per cent of the inhabitants knew only the parts of the passages that had meaning to them. The others were more familiar with places that were none of their business. And, as with ancient cathedrals, history and complexity had produced a place no one totally knew.

Antonio Scartia threaded his way through a warren of passages, ramps and what seemed like tunnels to the quarters of Charles Erskine. Erskine was one of the few single men on Luna One. His small place was on the second level in Sector F, near the periphery, though not commanding a view. Scartia was a chemist and Erskine was his assistant.

"I can't stay long," Scartia said. "Gina thinks I might be otherwise occupied. Suspicious girl, but I love her. For all I know she's followed me here." He peered into the dimly illumined passage beyond the hanging partition. "So, you've been putting your head to work? What do we do about Operation Red, then?"

"I know the first thing we're going to do."

Charlie's place had no solid partitions, but he made gestures to make the cubicle as secure as he could, then unlocked a small closet and withdrew a bottle and two glasses. Into the glasses he poured small quantities of a dark amber fluid. He handed one glass to Scartia, raised his own, and said, "Up!"

They drank, knocking it down in a swallow. There wasn't much of it. "Down!" said Scartia, in ritual response. "So old friend, what now?"

"Well, we're not sure he's onto us, are we? Maybe he didn't tumble."

"Maybe he didn't. My guess is he did. Something about the look in his eyes when he left. The question is, do we keep Red going in the lab or do we put it someplace—where he can't find it?" Scartia eyed the small amount remaining in the bottle.

"Might as well finish it," Charlie said. The last drops fell slowly into the glasses. They sat at a small table, looking at each other, partners in crime, knowing no guilt whatever, thinking only of ways to keep their thing going. Scartia looked at his watch.

"We've always done it, you know," Charlie said. "Always."

Anthony raised a questioning glance.

"Fermented and distilled. It's been part of us back to the cave. The fermenting part, anyway. Why shouldn't we do it here? For the love of God, do we survive or do we not?" Charlie's face held a serious look. "I say that we do survive. And that we should survive with—amenity. And that if we do so it is—in part at least—because of what we do, you and me. In these particular operations, that is. Their time will come, Project Design or no. We will provide an important service, a necessity. The provision of such service will, of course, have its reward," he added almost as an afterthought.

"A necessity, yes, but one overlooked by Project Design. This makes us crooks, you know. And I'm really an honest man at heart."

"Well, don't go too far, Tony."

So you're an honest man. Think of the virtue in providing an honest service then. Let's just say we carry on in the tradition of our ancestors."

"Yes. However, I didn't come to discuss philosophy, but practical matters. We will provide a service, yes. But I think that Pierre, good fellow that he is, is onto us. By accident, granted, but it's still the same problem. I say we move the operations, both of them. Question is, where?"

"I had come to the same conclusion. Though it makes, of course, an inconvenience to us. However, in such matters it is best to be prudent. I think I know of a place in A. Fifth level."

"Mario's?"

Charlie shook his head. "No. Perhaps, for now, I'd best not tell you. You understand, friend?"

"Of course. And I'll move Yellow, fire that one up in a place I know in C. When the heat's on, move on. Old aphorism."

"Right on."

"What?"

"An old twentieth-century expression. You know I'm a history buff."

"Okay. I've got to get back. I don't like Gina to be mad at me."

Hives do hum and Luna One was humming, though at this time at a subdued level. Activities, licit and not, were in progress. The decision having been made to move the two operating stills into dark quarters known only to Scartia and to Charlie (and each of these knowing only one of those locations), Scartia made his way back to his enclosure. He took some pride in

knowing what went on where in Luna One, but he passed within ten feet of a conversation he knew nothing of, one in which he would have taken a considerable interest.

THREE young people, illicit agronomists, the first growers of marijuana, pot, grass, on the moon. These are two boys and a girl whose responsibilities involve the production of food. *C. sativa* is not a food, but these three have an interest in it. On their ride up to Luna One they have carried a small number of seedlings. Such transport was, of course, proscribed, but they had gotten away with it.

It is the view of Project Design that man will not escape to the stars unless he can first establish a self-sustaining base on the moon—as prelude to a self-sustaining spacecraft. *Self-sustaining.* This means, among other imperatives, the production of food. Thus there are on Luna One a number of carefully tended agricultural plots. Some are at the skin of the dome, where sunlight comes in during the lunar day, and some are inside, bathed with rays of sophisticated content. Some of these plots are hydroponic, some are not. The three junior agronomists have put their smuggled flora in a small plot meant for Idaho potatoes, thinking no one would notice this small departure from Plan. But Pierre Charpentier, executive mayor, had noticed.

The three horticulturalists are Robert and Pamela McDonald and Andy Rikishin. They were meeting in the McDonald place as Antonio

Scartia passed by, almost within earshot.

"I think Carp is onto us," Andy Rikishin said. Carp's name was Charpentier, but most opted for Carp. He was an informal type and was reasonably well liked. "Though, I think, he tried not to show it."

"He's no botanist, no agronomist," said Pamela. "He's not even a scientist. He's an administrator."

"Right. But how much of a scientist do you have to be to tell the difference between marijuana and potato plants? And he's not stupid," McDonald said. "The question is, if he's made our small plot, the Idaho potato one, why hasn't he done something about it?"

Andy extracted a joint from a thin metal case in his shirt pocket, lit it and passed it around. "I always think someone will get the smell," he said. "Good thing this fake atmosphere is something we can burn the stuff in without blowing up the dome. I say we sit tight and see what happens. We've the other patch he almost certainly doesn't know about. Okay?"

"Okay. It would be a bother to move it, plus more chance of somebody else seeing it."

Another decision made, then.

"What are you thinking about?" Rikishin asked, noting Robert's thoughtful gaze.

"Well, I really wouldn't want us to, you know, louse up the colony with our—uh—project. I mean it. If I thought it was bad, really bad for Luna One, I'd pull up the plants. I *can* do without it. You know?"

"Sure," Rikishin said, not hesitating. "And so would I. We're in this to survive. But we think our—project, good word—enhances our prototypical effort to make it, don't we?"

They nodded in a silent but not totally committed accord and finished the joint. Andy made his way, then, through tangled passages back to his own place, back to Sandra and The Mai. The Mai? The other Pekingese on the moon.

Antonio Scartia had arrived at his bed about two minutes before that. Gina had been only moderately suspicious and was, he saw thankfully, asleep. The end of another day on Luna One. Day three nine one.

II

Scholars and saints are soon forgotten, but great drunkards are immortal.

Li Po

DAYS into the mission since the arrival of the first colonist: 392. Deaths to date: one. Jeff Barnes, power-plant technician—and, according to present indications, the only accident-prone colonist to sift through the screenings. In his first week on the moon he'd worked on an inadequately shielded module in the plant with both hands at the same time, thus violating safety regulations, this particular one going back to the nineteenth century. He had jerked away in time and fallen backward—gently in the lunar gravity, so he'd suffered only a burned hand. The next week he'd gone out on the surface for needed

equipment without checking the life-support of his suit and had run out of anything to breathe just outside the lock. Natural selection at work on the moon. Barnes probably wouldn't have lasted long in the Plymouth Plantation either.

Births: two. A boy to one couple and a girl to another, which tended to maintain a balance. Peter Mungo and Ishbel Lopez y Gasset were the first children born in the first permanent colony on the moon. There had been two other births on other, more transitory lunar missions.

Population: 569, up one from Day One.

Why only two births in 392 days? Actually there should have been but one, since the desideratum was zero population growth. Not only was there no hurry to overpopulate—their situation being what it was, their memories of Earth being what they were—but overpopulation was specifically defined, proscribed and under control. The members of the community had been chosen with this in mind. Which is to say that they were supposed to be relatively long on contraception and short on compulsion to beget.

One extra birth had, though, slipped in. Or out, if you will. The Mungo boy was strictly legitimate, having been conceived with full official approval about three weeks after Jeff Barnes had made his anoxic departure from Luna One.

The Lopez y Gasset girl was also legitimate, though only accidentally so. The p-c pill was almost perfect, but not quite. In any case, Desirée Lopez y Gasset had con-

vinced the council that she had indeed taken the pill and that it, well, hadn't worked. This had been known to happen on Earth, so why not here?

Day three nine two.

“WHAT now?” Carole asked. “I need to take a walk,” I said. “I’m claustrophobic, though I was well screened for that. As were we all. I’ve things on my mind.”

Carole propped herself on her elbows to look at me. She was cute. “So walk here,” she said. “See the view. How many of us have one? Enjoy. I’ll be quiet. Or go up to the Penthouse. Or let’s both go to the Penthouse.”

“With all due respect,” I said, “being quiet is not your major virtue. Though virtues you have.” I trod the short space, thinking that Earth gravity would be more suitable for this kind of pacing—you could put more into it. Triangle after triangle floated past my peripheral vision. I turned and they slid by on the other side. There were small imperfections in each pane of Mylarform and I knew them all. One was like a great white pine, I thought, though Carole couldn’t see it. I hadn’t seen a real one for a long time. “And I don’t feel like going to the Penthouse just now. I’d have to check the list anyway and it’s in my office.”

I stopped walking for a minute and sat on the edge of the bed. The Chairman came out from under and gave me the look that says its time to sack out.

“I’m going to look around tomorrow and see how things are. Then I’ll talk to Winter,” I said.

I rose from the bed. Pace, pace. The Chairman down under again. Passes to leave the dome to walk, however briefly, on the surface were stringently rationed. Not that I needed a pass. There wasn't much to do out there, not now, and it cost a bunch of energy every time someone went out. It was surprising how the need (for some) to get out there became so urgent now and then. It seemed a little closer to Earth and I understood that, but none of us wanted to go back there—and even if we wanted to we knew we never could.

"I don't know why you're so psyched up about it," Carole said. "You've discovered forbidden operations and you must stop them. The colony won't survive without discipline, right? I've heard you say that so many times. Remember Mayflower Three?"

"I remember Mayflower Three as well as anyone," I said, "though it was before my time. But I think this is something different."

"Different how? And why haven't you talked to me more about it?"

"I haven't talked to you more about it because it's just happened. The point is this—and I do remember Mayflower Three—we're leaving Earth because it is, more or less, a ruin. A ruin made by us. One of the things that put it where it is was drug abuse." Carole opened her lovely mouth, but I shut her off. "One of the things," I said. "Not drugs, but drug abuse. I don't propose to give you a learned discourse on the history of fermentation, distillation, tobacco, mushrooms, heroin—"

Here Carole cast her eyes aloft, all the way to the ceiling of our small place. The ceiling was low. For me there is a comfort in low-ceilinged places, except when I'm claustrophobic. When I was a child I dreamed much of such places, pleasant dreams. It must have been tied up with a return to the womb, so the psychologists had said when I was being screened for Luna One. Well, why not? It was safe and quiet there. And low-ceilinged.

"What I'm really thinking about," I said, "is maybe here is an opportunity to work with the drug thing on a different basis. We certainly blew it there," I said, nodding toward the familiar blue-green disk. "Maybe we could do it better. Find a different way, a new approach, something."

Carole thought about that. "I see something of your point, I guess. But the law is the law, isn't it? And you're the number-two man here. Must be you've got to be on the side of the rules, Pete."

I looked into the blue-green eyes I knew so well. Something here was out of joint, but I couldn't put my finger on it. "You're coming on strong on the side of law and order, aren't you?"

The blue-green eyes looked away as I crawled into bed.

"I know you're troubled," she said. "You'll do what's right. I know."

I was almost asleep. Unconscious resolution. Or attempts in that direction. "The law is the law is Project Design is Project Design," I heard myself saying. I thought that was silly, knocked it off and snuggled against Carole,

seeking wisdom and comfort. Comfort I found.

NEXT morning, still in the lunar night, I went to Winter's office. This was on a high level, the third from the top, occupying half of that space. The view was something, but I wasn't there for that. Anyway it was night and I couldn't see Eratosthenes. It took some getting used to—its being dark all day for two weeks, then light all night.

Winter sat behind his desk, looking like a displaced secretary of state: dolichocephalic of skull, bushy white of mustache and old Boston Brahmin of mien. His name was Winter and that suited his smile. He was another of the few single men on the moon. His wife and only daughter had been killed in a rocket crash two weeks before the liftoff they were supposed to ride with Winter on.

I told him straight off what I had found and what I hadn't done about it. He took it coolly.

"Actually," he said, "I'm not much surprised. These activities are, of course, against our law, against Project Design, and will have to be terminated. Have you gotten onto John Edgar yet?"

"No, I haven't."

John Edgar was our law enforcement officer. John Edgar wasn't his name, though, he was called that after a twentieth-century bureaucrat whose name someone had remembered.

"Why not, then?"

I was not at ease. "It's a long story," I said, buying a few moments, wondering what I was doing. "The thing is, Eli, I'm not

sure what is the right thing to do."

We were a small colony and we all more or less knew each other. I could see that Winter was trying to understand something in me he hadn't known was there. He was a little off balance.

"Carp," he said. "Carp. I don't have to tell you this, but it is possible that the future of our race, for what it's worth, depends on what happens in Luna One. Our laws, directives, were well thought out, well planned. For what possible reason would you think of violating them?"

"I'll come to that. But, Eli, the laws weren't made by us, were they? They were made by Project Design on Earth. None of whose personnel became part of Luna One. Not one. They're there, all of them. We're here. Maybe we should make our own laws. We're alone and almost autonomous. How many more supply ships are coming? Three? Then radio contact only, through which we tell them how to make a self-sufficient colony work while they're building the ships, assembling them in orbit, to head for our nearest neighbors. Presumably we—our descendants, that is, if the colony survives—will be shuttled to the ships and away we go, the ships carrying other self-sustaining colonies constructed upon what we have learned here." I paused. "Excuse the lecture. I got off my point."

"Which was," Winter said, "how you could consider permitting these illicit operations to continue. I'm not about to send you Earthside on the next supply ship, but you've aroused my inter-

est. My interest, not my approval."

"To make it short, it's simply that this is something we've always done—back to prehistory. That must mean something. Fermenting, distilling, smoking."

"But not mainlining heroin."

"That's something else. That's not what we're dealing with."

"What we're dealing with is the beginning of that. In one word—why do we have to leave Earth?"

"In one word, pollution."

"That's right, Carp. But pollution is an omnibus condition. One of the reasons we're here is because of escalating internal pollution, if you will, through ubiquitous use of psychoactive drugs on Earth. What's keeping much of Earth quiet right now, Carp, except a combination of Jesus and junk? We want to do better up here."

"We do. No argument. But—a small drink now and then? A quiet smoke?"

Winter looked at me thoughtfully. "The history of that Earth out there," he said, nodding, "is what has put us here, in uncomfortable and hostile surroundings, trying to escape. Don't think Project Design didn't think out a few things, Carp. They did."

He rose and walked a little. I sat there looking at the stars.

"They have to go, Carp, the stills and the grass. You want John Edgar? Want me to come with you?"

"No," I said, standing up. "No. I'll take care of it. I'll be back to you in due course." I turned to leave, then turned back again. "If we pull up the plants," I said, "they're gone. We can't synthesize

the plants. They can't. So they might try putting something else together. Acid, maybe. And there will always be something to ferment, to distill, as long as we grow wheat, potatoes, rice, whatever. Unless we can eliminate yeast from Luna One—and we're a little late for that. I'm just wondering if we're not conducting an exercise in futility."

"Luna One is a warren, as you know, Carp, but it's not that big. We can keep an eye on all the labs. We could put John Edgar on it full time, there hasn't been much else by way of crime here." His tone indicated that the interview was over. "You know what you have to do."

I nodded and left.

I WENT down to the fourth level and headed toward the center of the dome. Antonio Scartia's lab didn't need skin space and he was deep inside. His shop was strictly analytic—or had been until he'd fired up the still I'd spotted by accident. Scartia was a chemist. His primary function was to analyze lunar soil and the products produced from it. Vitamins in the cabbage, trace elements in the potatoes, like that. He wasn't supposed to be a creative scientist, just a fact-finding one. I rapped on the jamb of his portal and walked in. A spacious laboratory, considering where it was.

"Scartia," I said. "Good morning. I'm just wandering around. Part of my job, eh? Any problems? Everything going well?"

"Good morning, Carp. I mean, Mr. Charrp—that is—"

"Carp is fine, just fine. Any

problems here?" I walked slowly along the aisle between the two long benches filled with arcane apparatus. The apparatus I sought wasn't there.

"No, Carp. No problems. All going well." Bubbling retorts, strange odors and no still. "This—" Scartia indicated a complex array of glassware—"is a new analysis of the major nutrient in the new hydroponic bay. Here are the first results if you're interested."

I glanced courteously at the sheet he proffered and understood some of it. "They seem to be going well, the hydroponic projects."

"They are. Everybody knows where the water comes from, but it makes good vegetables." We walked back the way we had come, looking now at the gear on the other bench. Scartia was wary, but unruffled. He had moved the still, so he had guessed or suspected that I was onto him.

"What happened to the apparatus that was here the other day?" I said, placing my finger on a precise spot on the table. "It looked interesting."

"Here?" he said, looking at the spot mystified, as if trying to remember. He did it well.

"Here. It looked like a distilling column, Scartia—adapted to moon conditions, but recognizable."

His swarthy features assumed a look of such spurious innocence that I almost laughed, but I played it straight. This was serious business. "No distilling operations are in our program here, sir," he said, looking like a Renaissance angel. Or trying to.

"I could have sworn," said I. "Right here. A glass flask, a reflux column, a water-cooled condenser. A collecting vessel. Surely I didn't dream it."

"That piece of apparatus you must have dreamed, sir. Carp. Never anything like that here."

"Perhaps an assistant moved it to a different place?"

"No, sir. Carp. I only have one assistant, that's Erskine—Charlie—and I know everything he does. It all has to be in the log." He proceeded to a disorderly desk. "See," he said, passing me a thick notebook.

I gave it a *pro forma* glance. "And everything you do must be recorded here also, of course."

"Certainly, sir. Carp."

"Yes. Perhaps I imagined that apparatus. Or maybe it was in some other place. Perhaps I'll find it, eh?"

There was an understanding in our mutual appraisal. He knew that I knew and he knew that I knew that he knew. But it was a small world and we were treating each other like gentlemen. Which we both, after all, were.

Scartia was eager for me to be gone, but I had things on my mind. "You're an analytic chemist, right?"

"Yes, sir."

"Can you give me a few minutes? I've a few questions. On unrelated matters."

"Sure, Carp." He was wary again. "Why don't we sit down right over here?" He led me to his untidy desk.

"Okay, Tony. Tell me this. Can marijuana be synthesized? And

keep it simple—I'm no chemist."

A look of genuine and refreshing innocence now came to Scartia's face, together with relief. Pot, clearly, was something he wasn't into.

"Well, Carp, yes and no. First of all, there's no such one simple thing as marijuana. What's in the grass is a very complex mixture. The major component, THC—that's tetrahydrocannabinol—can be synthesized. But it's a long and tedious process. Why do you want to know about that?"

"I'm curious. And I'm interested in chemistry—also in Luna One. In other words—among our various worries here we don't have to think about some ambitious chemist—not you, of course—synthesizing grass?"

"No, sir. No problem, Carp. The way to do it would be to grow the plants—" Sudden comprehension illumined his dark face and he let the sentence trail off.

"Fine. I won't worry about that, then. All right, how about acid? Could it be synthesized here on Luna One?"

Scartia was enjoying this. "Well again, yes and no. If you have D-lysergic acid to start with, there's no problem. But to make the D-lysergic acid is one hell of a job—sir. I don't think anybody could get away with it in any lab in this dome, Carp, if that's what you're worried about."

"I didn't say I'm worried—I said I'm curious. Is there any way to make acid without synthesizing D-lysergic acid?"

"Well, yes. You'd need ergot. The best way would be to grow

rye—which we don't have any of on Luna One that I know about—and infect it with *Claviceps purpurea*. That's an ergot fungus. This grows on the rye. Then you isolate the dried sclerotia of the ergot, extract the alkaloids and you can get D-lysergic acid out of that without too much trouble."

"I said to keep it simple, Tony. So—if I understand you, we couldn't have an acid problem on Luna One unless we had both rye and an infective fungus. Right?"

"That's right, Carp. Again no real problem, I'd say." Scartia, illicit distiller that I knew him to be, was sitting in on a high-level conference here and I could see that it pleased him. Also, it was obvious to him that I had other problems than his still (stills?) on my mind—and that was clearly a comfort.

"You seem very knowledgeable about all this, Tony."

"Well, yes. I'm a chemist. A good one. There was lots of competition to get up here, Carp."

"Right. Okay. Last question. How about skag? Heroin? Can that be synthesized?"

"Yes, sir, it can. But it is a very, very long and difficult procedure. No way to do it here. No way. Another worry off your mind, sir?"

"Yes. But there's an easier way to make heroin."

"There is. Grow the poppies. *Papaver somniferum*. That gives you the raw opium and it's easy to make heroin from that. But there's not much room here to grow that many poppies."

I rose. "Thank you, Tony," I said. My informant got up hastily.

"I've got to look for a still now," I said at the jamb.

"Sure, Carp. If there is one I hope you find it."

I walked out. I hadn't solved anything, but I'd put a card on the table.

NEXT I drifted through many a walkway, past many rooms, nearly weightless down a number of ladders, to a place on ground level at the outer wall—the field watched over by Robert McDonald and Andy Rikishin. Idaho potatoes, Kansas wheat and Iowa corn. This plot wasn't much by way of being international, but we had the best of those products and that was that.

Rikishin greeted me. "Hi, Carp," he said, not long on ceremony. Likable boy, I thought. We knew each other socially to a degree. The Rikishins had the only other Pekingese on Luna One. McDonald was off at the other end of the plot, measuring different plant heights in different sub-plots.

"Just wandering around," I said. "Part of my job. How are things going? Any problems here, Andy?"

"No problems, not really. We could use more phosphates, but we understand the difficulty there. But we're just about on target, Carp."

I strolled about in this airy place where green things grew. It was the lunar night, but it was our day and overhead lamps of sophisticated design shed complex frequencies of radiation upon the plants and the soil. And upon us, of course. I wasn't quite used to the idea of green things growing on the moon. It was beguiling to walk around.

"Idaho potatoes," I said at the appropriate place. They ought to do well here. The volcanic soil." Always, on Earth, the best potatoes had come from Idaho, growing not far from the so-called Craters of the Moon, in soil not dissimilar to this. I suddenly saw Eratosthenes, my moon crater, not as the Mount Monadnock I'd become familiar with later, but as some kind of inverse kin to the Great Southern Butte in Idaho which, in my boyhood, I had known from almost daily observation. I had looked out at it from my bedroom window and from the windows of the physics lab in high school, when I should have been attending to the work at hand.

"We've got a good crop coming here, Carp," he said, somewhat uneasily now, following my gaze. "You're right about the soil. Nothing like volcanic soil for potatoes."

"And how about the *Cannabis sativa*?" I asked casually. "Does it do well?"

Rikishin sighed, but he didn't flap. "We thought you were on to us, Carp," he said. "We tried to hide the plants behind the potatoes. They do stand out, though, come to think of it. Don't look like potatoes at all, do they?"

"They do not," I said. In a small world a quarter of a million of miles from a bad place and light-years from anything else reasonable, you treat each other like—well, people—or you don't survive. So I thought.

McDonald had walked up, gotten the picture. We nodded to each other. There wasn't one person on Luna One I didn't know. Every-

body didn't know everybody else, but I did. And everybody knew me, too. Not my fault, just that I was the executive mayor.

"Has John Edgar been around much?" I asked.

"He's walked through, but he didn't make the pot," Rikishin said.

"Do I have to say these plants aren't supposed to be here?"

"No, Carp. We know that. We thought it was worth a try. What are you going to do with them?"

I looked at these young boys. "I can't leave them growing, can I?"

"You can if nobody knows about it," McDonald said hastily.

"Luna One is no game, boys, as you know. I've already mentioned the plants to Mayor Winter. I'll have to take them," I said. "You can understand that."

"I suppose so," Rikishin said. "But think of this—the concept of irrevocability. If the plants are destroyed there's no way we can get any more. No way. We can't synthesize the plants, right?" he said. "But it doesn't take much of a lab to synthesize acid. Not that I'm for that, I'm not. But it wouldn't be too difficult to do. Luna One does have chemical laboratories."

Time now to display my newly acquired knowledge. "Actually," I said, "it would be an extremely laborious undertaking to synthesize LSD unless you had D-lysergic acid to start with. And I don't think there's any of that on Luna One." I told them about the rye and the ergot.

"Oh. All right. Leastways we're not growing poppies," McDonald said.

They wrapped the plants carefully for me, gave them to me and I took them away.

I respected these boys and their enterprise. Not this specific enterprise, but their enterprise generally. Perhaps they respected me, I didn't know. I had tried not to show that I'd seen two or three other plants hidden behind the Iowa corn. If they respected me they'd think I'd seen those other plants. If I'd seen them and hadn't taken them, then what would they think? I was mildly apologetic at leaving them with what I recognized as a minor dilemma. But I couldn't think too much about their problems, having quite enough of my own to deal with. In the end, with Rikishin's concept of irrevocability in mind, I took that one bundle of plants to Winter's office and left them on his desk. I recognized that I was playing some kind of small-time God here and wondered if I was cut out for it.

III

*These impossible women!
How they do get around us!*

Aristophanes, c. 375 B.C.

"THE Mai is in heat," Sandra Rikishin said. "In case you haven't noticed."

"I've noticed, all right," Andy said. He had told Sandra about the pot semi-bust, but she hadn't been much interested. "You didn't give her the pill, then?"

"No, I didn't. It isn't right."

"Do you remember how many papers we signed to get onto this mission? Do you know how few

people were allowed to bring a pet? Six cats and six dogs. Two of which are Pekingese."

"And you get caught growing grass. You have no base to stand on."

The dogs and cats on the moon had adapted to lunar gravity without difficulty. Mai Ling now paced sensuously about the room, her hairy tail waving in a slow dignity it could never have achieved on Earth. She sniffed at the canopy guarding the entrance, threw herself on the floor in front of Andy, presenting her stomach to be stroked. Andy did so. "It's not me she wants," he said. "She wants The Chairman. Poor thing. You should have kept her on the pill, damn it. She'll whine and talk and howl all night. And tomorrow and tomorrow."

"It isn't right," Sandra said. Her figure was more than ample. She took her turn walking round the small place, her walk as sensuous as that of the hapless guardian of the wall against the heathen devil. "I take the pill, too, a different one, granted, but a pill. I don't want to, but I know the rules and I do it. For now I do it." Andy glanced at her sharply. "The Mai does not know the rules, so it isn't fair."

Sandra said this as if she had, without really thinking about it, just discovered how to square the circle. Her maiden name had been Lee. She was Chinese, the Sandra notwithstanding.

"But—you know the rules, as you admit, and the rules are to give the dogs the pills. For at least two more months. Then we can peti-

tion." Andy realized that his stance reeked of paradox and contradiction, but he didn't know anything to do about it. "This is Project Design," he added lamely.

Sandra said where Project Design could put it and Andy had cause to doubt the gentility of his wife's breeding, though her pedigree went back almost as far as did Mai Ling's. Or The Chairman's, for that matter.

"It is late," she said. "It is time for bed. I will fix you a hot chocolate."

"That would be nice," Andy said, idly stroking Mai Ling. "I'm glad the cacao grows well in the hydroponics."

Sandra was a good helpmeet. She made hot chocolate for her tired young husband and into this sweet mix, which Andy adored, she thoughtfully added enough nonatal to stone an ox.

There are two sexes and one knows more than the other.

"DOWN, boy," I said. The Chairman was sniffing around near the door to our place, trying to mount my left leg from time to time and, failing that, trying the table leg. "What's the matter with this dog?"

"He's nervous, that's all," Carole said. "He didn't eat much of his dinner tonight. It's late. Leave him alone and let's go to sleep. I'll fix you a nice hot cup of tea, all right? With lots of sugar, the way you like it. We're way ahead of our ration."

"That would be nice," I said. "The bitches on this trip are all fixed on the pill so it couldn't be that. Where's The Chairman get-

ting all of these raunchy ideas?"

"He's nervous," Carole said and went into the cubby to fix my tea.

"I do like a cup of hot tea before bed," I said. "A proper hot toddy would be better, but—"

"You left the plants with Winter?" she asked from the cubby.

"I did. I don't want to talk about it now."

Carole brought me a steaming cup. I think I was asleep before my head hit the pillow. I had a fragmented dream or perhaps just a hypnagogic flight of fancy before dropping off. Carole held my hand and said something about how everything would be all right and she would be right back, just as soon as she took The Chairman for a little walk.

IV

*When men drink, then they
are rich and successful and
win lawsuits and are happy
and help their friends.
Quickly, bring me a beaker
of wine . . .*

Aristophanes

I WENT looking for John Edgar. That's what you do on Luna One when you want to see someone; you go looking. There were no telephones—Project Design had thought such expenditure frivolous. There was a thin network of emergency links between the mayor's office, my office, the power plant, the electronics bay and so on. We could talk to Earth with some ease, but not to the guy around the corner on the next level. A sensible arrangement, one most people liked.

Whatever our problems were we didn't have to be on the phone the livelong day.

I found John Edgar playing gin rummy with a technician in the power plant and led him through the passages to my office on the sixth level, at the skin.

"John Edgar," I said. "We have a small problem."

He sat in the chair across from me on the other side of the desk. He was paunchy and bald, a short man.

"Nothing serious, I hope?"

"Not really. I found some marijuana growing in Field K."

John Edgar raised his shaggy brows. "That's a serious violation, sir. Field K. Rikishin and McDonald?"

"Yes. I pulled up the plants and disposed of them. Turned them in to Winter, that is."

"Case closed?"

"Maybe. I want you to look around the fields and the hydroponic bays, see if there's more. Know what it looks like?"

"Sir!" He was offended, perhaps doubly so since I'd made the discovery in his field, as it were.

"Of course you do. Sorry, John Edgar. Look around, confiscate anything you find and take it to Winter. Don't make a big thing of it. We don't want word to get around for a number of reasons."

"Right, Carp. Will do. If this has gotten much of a start they could be growing it in their rooms, right?"

"Not easily. And you can't go into private places without good cause plus an order from the mayor or me. Few people live at the skin.

They might use sunlamps, of course."

"The only lamps like that in the colony I know anything about are the big ones in the fields and the hydroponics. One of those would attract attention in private quarters. And probably would show up on the power-plant tape."

"Right. Well, John Edgar, look around, casual like, check it out, and let me know if you find anything."

"Will do."

He left then and I got into my next conference, which was with myself. I wondered why I hadn't told John Edgar to check Field K with particular care, instead of giving the impression I'd entirely taken care of that particular problem. What, I wondered, was I doing with, to or for Rikishin and McDonald? Giving them a sporting chance to keep their small operation going? It would have to be small. And why hadn't I mentioned the disappearing still? No doubt for the same reason I'd told Winter I'd been mistaken about the still, that it had been a different apparatus altogether. And where had that still been hidden, I wondered. Questions in my mind. You don't need sunlamps or skin space to run a still. You need raw materials, but in a colony of this size a modest amount of wheat or corn could easily enough be liberated. Was I with Scartia and Erskine or against them? If one still were operating secretly, perhaps there were others. Did we have on Luna One a revival of the Mafia? I knew from my study of history that that organization was thought to have died out

in the late twentieth century. I also knew that it had been a powerful force from time to time. Perhaps it had only been driven underground. Was I up against a few individualists or a service organization?

The problems I had here would be difficult to solve, assuming that I wanted to solve them, because we had rules, directives about privacy, and they were meant to be enforced. We lived so close together it had to be that way.

Most of the partitions, except for the structurally functional ones, were not solid—they were hanging drapes, as on an ancient pleasure barge. This gave some visual privacy, though in the auditory area there were problems. The height of the dome at the center was some ninety meters, and the honeycomb within rose all the way to the top, following the upward sweeping curve from the perimeter of the base. Because of fear of claustrophobia (which ought to be called claustrophobiaphobia), about which Project Design had had some cause to be thoughtful, the height of each level averaged about ten feet. Because of structural considerations I didn't understand, some levels (such as ours, the twelfth) were lower-ceilinged and some were higher. An average height of ten feet was somewhat extravagant, but the social scientists had prevailed. In the end there were, then, twenty-four levels. At the periphery, at the skin of the dome, there was less upward extension, of course, but at the center of the dome the top level was number twenty-four. The Penthouse.

Elevators could have been pro-

vided, but would have represented an unconscionable expense. Anyway, climbing and descending all those ladders and ramps in moon gravity was dandy exercise, something between jungle-gym and trampoline.

I sat alone in my office, in conference with myself, thinking about privacy and other things. Our need for privacy would impede John Edgar's search for marijuana plants and also any effort I might make to discover stills making alcohol. There was no way anyone could have too much privacy on Luna One—or enough of it—but the aim of Project Design had been to create at least the illusion of it. Thus the heavy hangings which served as walls, partitions, where structurally important support wasn't necessary. These made for a vague reminiscence of potentates' tents pitched near quiet oases. And the hanging before the door was, barring extreme cause, inviolate. You knock on the flimsy jamb or stand there and announce yourself. Entrance is granted or it is not. And when it isn't no offense is taken.

I could, of course, check the fields and laboratories with no difficulty. But I didn't think I'd find much action there, not now.

I put a piece of paper into my typewriter and wrote this:

Luna One, Day 394.

I have two problems. Pot is being grown on Luna One and alcohol is being distilled. I have terminated one pot plantation and have let one go. I have permitted a still to go underground. My query to me: how far do I pursue these

enterprises? I am second in command here and my hand is not empty. My dreams, however, are uneasy.

From the extensively unpublished works of Pierre Charpentier, day 395 moving toward day 396.

I tore it up and threw it in the wastebasket.

NOW day 401, the sun three days up. See Sandra Rikishin and Carole Charpentier. They have connived to increase the Pekingese population of Luna One, not having thought even to ask for approval in the certain knowledge that no approval was available. And they, united in this unlawful venture, have united also in a greater sin. For sin, read violation of Project Design. Pierre, Pete, Carp, executive mayor, is off about his troubled business and the girls bask near the skin in the Charpentier quartier.

"I did it," Sandra Rikishin says. "I mean, I didn't do it. I really, honestly to God, didn't."

Sandra has not brought The Mai along. The Chairman lies there, as close to the skin as he can get, seeking what there is of the rising sun, thinking he must be, this day, a pussycat. He entertains little thought of The Mai, that is all behind, though one must believe that his recent memories, though fleeting, are not without satisfaction. He studies the feathers on his paddy feet.

The post-coital pill is what Sandra is talking about. She has cohabited and she has not taken the pill. She looks now at Carole and there is an understanding here,

chauvinism aside, that can only be inter-female. They are partners in sin and their sin is of no mean dimension. They have let The Mai and The Chairman have their way and that has been their undoing. They have witnessed this Oriental joining, have observed the motions, the looks in the eyes. In consequence they have, both of them, done considerable violence to Project Design. They touch each others hands for a moment.

"We're in it together," Carole said. "I refuse to believe it's bad for the mission. For Luna One. And so do you."

The Chairman turned his head their way for a moment, wondered if there was something worth commenting on, decided not, and returned to his pleasurable musings.

"It may not be bad for the mission, Carole, but it might be bad for us," Sandra said. She hadn't been slender to start with and now she was, overnight, a garden of plums. Overnight. Such is the way of a gravid woman. Inevitability is, so to say, inescapable. Carole, for her part, was beyond all recall a grove of ripe apricots.

"This was how it had to be."

"Yes."

Many are the faces of love. It has been difficult for a man to love a man, but it has been possible. It has been said that the truest love is that between a father and his son, a mother and her daughter. Perhaps that is so. Women love women more easily than men love men. Though they have a greater problem in giving physical expression to such emotion—witness, say, any male athletic team in the arena at

the moment of victory. Forgetting about sex (a likely story) the young can love the old and the old the young. All of which is peripherally to the point of Carole Charpentier and Sandra Rikishin. They, in their various lovings, have sinned—and, in the view of Project Design, have sinned grievously. And see this—they feel no guilt, none at all. Fear, yes. But guilt is not their problem.

"We had to do it," Sandra says. Carole nods and they touch their hands together fleetingly once more. "I've got to go."

"Yes. Pete will be back soon."

They had been drinking tea. They looked through the Mylar-plex into the abrasive landscape.

"We did have to," Carole says. "We did. You know."

They understand each other and that is the end of the exchange. Carp and Andy, engaged in other inquiries and operations, know very little of what is going on with their women—though they love them very much.

V

*No poems can please for
long, or live, that are written
by water-drinkers.*

Horace, 6508 B.C.

LUNA ONE, day 491. The sun high, two days past lunar noon. No *Cannabis sativa* grew in any agricultural plot or hydroponic bay, not that I knew of. I had uncovered no still. A small amount of grass could be in almost anyone's private place, if they could get it into the right radiation often

enough. I was sure at least one still was going someplace and wondered why Scartia, fallen Renaissance angel that he was, hadn't come round with a clandestine drink for me. I knew that he knew that I knew. John Edgar, in an excess of enthusiastic search, had almost blundered his way back to Earth on the next to the last supply ship, but Winter and I had decided to keep him on. Call it nostalgia.

And I still worried about heroin and acid and wondered—was I missing something? If tender little marijuana plants could be (had been) brought up, smuggled, to Luna One, why not raw opium? Why not poppies? Raw opium was no real problem—that would make one batch of heroin and that would be the end of it. But poppies could be forever.

And if our *artistes* had the skill to produce alcohol (brandy? vodka? applejack?—what *were* they up to?) then perhaps others leaning toward public service had brought up small amounts of rye and *Claviceps purpurea* and gotten into acid.

"Why do you worry so much about it?" Carole asked, we about to go to sleep. "Whatever they're up to they can't do much of it. What's the harm?"

I cast my wife a questioning look. "Not long ago I was thinking these problems didn't amount to much and you were saying they had to be stopped. Now it seems to be the other way around. Are you putting on weight?"

"Not enough to worry about," she said. "But we're talking about your worry. Why are you thinking

all the time about these things—when whatever it might be that someone is up to must be on such a small scale that it isn't much of a problem?"

"You may be right as far as Luna One goes, sweetheart. My trouble is, I look ahead."

"I don't get it."

"What's the point of Luna One? Why are we here, herded together like turtles in bottles, in considerable discomfort?"

"I don't feel uncomfortable at all at the moment, if you want to know," she said, displaying herself outrageously on the bed next to the skin. "But, yes, things could be more comfortable elsewhere. All right. We're here because Earth is a mess. Though she do look pretty from here." We looked. The air-conditioning worked, but because of the heat and glare we had covered most of our skin space with movable hangings. We could still see Earth through the bright slit. "Doesn't she?"

"She do. But she is a ruin and we've all got to leave the general area before too long. And wherever man does survive, if he does, it won't be on the moon. It will be on a reasonably Earth-type planet. Upon which we will erect, among other facilities, laboratories. Upon which place, if not eliminated here, could be grown pot and poppies."

"And things to make alcohol from."

"That's a different thing altogether. Wherever we have potatoes or grapes or corn or anything like that we'll have alcohol. But when we take off for our first new planet—we could leave the mari-

juana and poppies behind. Those problems solved."

"So why wouldn't someone synthesize the drugs without the plants?"

"Too difficult a process."

"Marijuana and poppies might be growing in abundance on our landfill, of course."

"They might be, but it's most unlikely."

"It's not much of a job to put acid together, is it?"

"It is if you don't have the precursor. We could set up the plan so there wouldn't be any rye or *Claviceps purpurea*."

"But if it's an Earth-type planet something will be there. In some form or other. You're trying to sweep back the tide, Pete."

"It seems that way to me now and then."

"I'll make us a cup of tea," she said. And she did. "None of this has anything to do with you, with us," she said. "We'll be out of it long before."

"I know. But if we can have a child, he or she might be on the first ship. We have to think of their world. I do hope we get the approval for that. I'm the exec, after all."

Carole looked at me in a way I didn't understand, but I liked it. "We'll have a child," she said confidently. "But I think you're taking a too-regimented view of things."

"I'm thinking of starting a new world someplace and making it better. I won't be there to start it—nor will you—but I'm thinking about those who will. Our grandchildren—or maybe beyond them, even."

"You're not saying that marijuana and acid ruined Earth?"

"They were and are part of the picture that did."

"And alcohol?"

"There's always alcohol. Always has been and that didn't tear down the planet. Anyway, that will always be there."

"Tobacco?"

"That's all right for people who want to cut down their life expectancy."

"Herion does that, too, but that isn't all right?"

I was getting the worse of this and didn't know why. I copped out. "It's time for bed," I said, pulling the shade all the way across.

"I think you're being simple-minded."

"You *are* putting on weight," I said, just before dropping off to sleep. "It feels nice."

AND the next morning I set off on my appointed rounds. I visited Rikishin and McDonald first. There hadn't been anything amiss there for months, but it didn't seem a bad idea to check it out, to begin there, where I'd found the pot in the first place.

"Hi, Carp," Rikishin said. "Nice crop of beets coming here." He was innocence itself.

I looked around. "Lots of nice crops," I said. "Doing very well." This was, I thought, something like walking through a field of growing things on Earth. "Any *Cannabis* hidden away here or there?" I asked.

Rikishin wasn't offended. "You know you took all those plants," he said pleasantly. Nice boy.

"How's The Mai?"

"Why—just fine. And The Chairman?"

"He was nervous a while back, but he seems better now. We ought to get them together some time. Soon as we get the authorization, of course, and The Mai is in the mood."

"That's right, Carp. That is so right."

I looked around some more after that and found nothing of interest. The colony hummed along, folks went about their designated tasks, the atomic power plant worked, our wastes were recycled and we lived. I dropped by our place and saw that Carole was deep into something with Sandra Rikishin. Andy was, I knew, busy tending his field and crops. So I exercised a prerogative and violated the sanctity of the Rikishin place. In this I was responding, I saw later, to subliminal clues.

The Mai was there, all right. She came padding up to me with pleasure and recognition because she did know me and she brought along with her two brown puppies, one of which immediately began to lick my hand. Then the other one wanted to play and my Mohorovicic discontinuity informed me that I was in trouble up to my incudes, mallei and stapes. Those are the bones in my middle ears. And in yours.

So I played with the puppies. They were beguiling and seemed happy with lunar gravity. Most puppies I'd known had been happy with Earth gravity, but these were the first to be born on the moon. I complimented The Mai upon her

qualities of motherhood. I knew who was the father of those puppies. My dog. As in instant replay of something not seen the first time the picture formed in my mind. I played with the puppies a little bit more and got out of there.

I had, I saw, been had. The executive mayor, yes. There are two sexes and one will have its way. I went to the upper levels and climbed the last ladder to the Penthouse to think about this, but it didn't help. My sweet wife Carole, Sandra Rikishin and The Mai had had their way. I saw The Chairman as but a willing accomplice. Accessory during and after the fact, but victimized along with me. I didn't say anything to anyone about it until eleven o'clock that night. Local time.

"The Mai," I said to Carole, "has two puppies. Pekingeses. About a month old."

"But that's not—"

"No, it's not possible, is it? Very cute puppies, I must say."

"I wonder—"

"Knock it off, sweetheart. I don't wonder at all, nor do you. You and Sandra laid it on. She didn't give The Mai the pill and you took The Chairman down there about three months ago. I remember it as in a dream. Though I didn't understand it at the time."

The Chairman, at the mention of his name, stuck his head out from beneath the bed, then considered this conversation beneath his interest and went back.

Carole had been listening to Bach. She now turned off the tape. "All right, we did it. The puppies are sweet, aren't they?"

"They are. But where does this put me? Where does this put Luna One, for that matter? We have to follow the rules."

"You don't always do so, do you? Why did they send two of each up? Two of each of the pets?"

"You know as well as I. Or as Noah. To reproduce."

"Then—"

"To reproduce in due course. When Project Design says so. When the parents are older. To reduce the overpopulation prob—"

"I know. I do. But it's wrong. And it's bad genetically. Mothers—bitches or people—should conceive before they're too old."

I couldn't deal with that for the moment, so we went back to Bach.

"THERE'S no way to keep this under wraps," I said next morning. "Come on."

"Come where?"

"To Winter's office. We'll pick up Sandra on the way."

"Damn it," I said as the puppies greeted me in the Rikishin place. "They are cute. I wish you hadn't done this," I said to both girls.

We left the puppies with The Mai and I took the girls to Winter's office.

"I'm please to see you," he said to Sandra and Carole and indicated where they should sit. I walked back and forth. "I don't suppose this is a social visit?"

"It is not," I said. "We have a problem." Winter remained silent, looking at me thoughtfully. "The fact is that The Mai—that's the Rikishin's Pekingese—has two puppies. About a month old. I happened to find out about them yes-

terday." Sandra gave me a reproachful look.

"Pekingese puppies?"

"All the way."

"Then the—what do you call it in a dog?—father, sire, must, of course, be The Chairman."

"That's right," I said. Winter had neither dog nor cat—no wife or child. His attitude toward the pets on Luna One was, as far as I knew, more or less neutral.

"And it means," Winter said, "that the—ah—Mai was not given her pill." He looked at Sandra. "By accident, or by design. That pill hasn't failed yet."

"No point in not admitting it," Sandra said. "Carole and I cooked it up. The pill isn't natural." She blushed.

"So you rewrote the regulations as you saw fit?"

I had to hand it to the girls. They didn't seem to feel guilty at all. More defiant than anything.

"Something will have to be done about this," Winter said. "I'll have to call a meeting of the council right away."

The council was a group of five colonists—governing body, judge, and jury in one. Its function was to deal with the more serious infractions of Project Design. It hadn't been convened in the pot and alcohol business because both Winter and I wanted to keep that as quiet as possible. In addition to Winter and me, the members were: Joe Collins, M.D., Luna One's first and only physician—he had had veterinary training as well—Linda Wellman, who on Earth had been a social worker, and Chin Wang, chief scientist.

WINTER, making some concession, suggested that one of the puppies be destroyed and I regretted having brought the matter to his attention. Winter, Wellman and Wang supported this proposal. Joe Collins was against it and I abstained. I was afflicted by the importance of discipline, but I couldn't vote to do away with one of the puppies. Also, I knew what execution of the sentence would do to both Sandra and Carole.

"You'll take care of it, Joe?" Winter asked.

"Yes. But I won't enjoy it."

Meeting over.

I walked with Collins to the Rikishin place. Bad scene. Sandra was supposed to pick out the one she was allowed to keep. There was one of each sex. She couldn't do it. I picked up one of the puppies, put it into the arms of Collins and we moved swiftly away. I walked with Collins to his office/laboratory.

We were silent, threading our way through the maze to his work place on the second level, near the center. Collins, our one physician, I thought, walking and climbing along behind him. We age and we die. When we lose our physician where is the next one to come from? Not from Earth. Collins is training a younger man, apprentice-style, who will take over in due course. Luna One has a medical library, an operating place and a laboratory. Plus one apprentice, Clif Manescu, and that will have to do.

We came to the dispensary and closed the door—our doctor rated solid partitions. Collins put down the puppy. "This is the male." The

unnamed (as far as I knew) male padded over and licked my hand.

"We can't do this, Joe," I said.

"I don't like it any more than you. I was, you noticed, the only one who voted against the proposal."

"I know. I didn't abstain lightly. I want you to violate the council's directive, Joe. Many more people wanted to bring pets up here than could. We can find this fellow a secret home, right?" I remembered telling Carole that puppies couldn't be kept secret.

"I know a young couple that would go out of their minds to have him," Collins said. "But why should we do that? Why should I? Project Design, via council, says I do away with this creature. Besides, he'd probably be discovered."

The creature wagged its developing tail and went over to Collins.

"I'll tell you why," I said and I told him about the Rikishin/McDonald pot caper. "I propose a trade-off. I'll tell the Rikishins that we'll try to keep this puppy in the colony if Andy will pull up the rest of the marijuana. I'm sure they've got it growing someplace. I can't find it. They'll do it, so's not to do in the puppy. All right?"

"I don't want to do in this boy any more than you do," Collins said. "But in the end the rules, laws, directives are important, aren't they?"

"They are. But here's a chance to trade one violation for another. Project Design comes out even. You want, with your own hand, to put this pup away and have the pot

grow—or the other way around, man?”

“You think one offense is worse than the other?” He rubbed the puppy’s pink stomach.

“I most certainly do.”

“You don’t mind at all playing God, sort of, do you?”

I’d thought of that. “In these small ways I don’t, I guess. What say, Joe?”

He abandoned the puppy for the moment and gave me a long hard look. “You don’t have to twist my arm, Carp. I’m on your side. I’ll do it. Not just for the trade-off either—though, professionally, I’d have to be against the *Cannabis*. All of this puts us in quite a spot. We’ve been up here almost five hundred days now. And I haven’t violated a directive yet. Though I’ve had ample opportunity. Now I’m an accessory after the fact. Some cheap imitation God’s younger brother—no offense.”

“I know, I know.”

“The thing is,” Collins said, “people can be told only so far what to do. Even when it gets down to the bare bones of survival everyone won’t be told what to do all the time. They’ll burn their joint on the gallows, jump off the plank with their puppy.”

“Thank you much, Joe. You’re a gentleman and a scholar. I’ll go talk to the Rikishins.”

“Best this doesn’t become common knowledge, exactly.”

“Goes without saying. There’s room for many a secret in a hive like this.”

IN THE Rikishin place Sandra was sitting on the bed, red of

eye, while Andy walked the floor.

“Carp,” Andy said without enthusiasm.

The Mai and the puppy lay in the corner, knowing everything was wrong.

“I’ve a deal to put to you,” I said. “Have you named the puppies?”

“What difference does that make?”

“Look, damn it. I said I have a deal for you. Have you named the puppies?”

“Yes,” Sandra said. “This is Ling Ling. The other one is Shau. Means Little Shadow.”

I lowered my voice. The dogs, sensing something in progress, came to the middle of the floor. “This must go no further,” I said. They nodded, some kind of desperate hope in Sandra’s eyes. “Joe Collins and I are prepared to try to smuggle Shau into a cozy home.”

Sandra was, suddenly, the most beautiful girl on Luna One.

“But there’s a price,” I said softly but quickly.

“Anything,” Sandra.

“What?” Andy.

“Okay, Andy. You remember when I found the *Cannabis* behind the Idaho potatoes?”

“Sure.”

“All right. I saw the other bunch at the same time. Behind the Iowa corn. Don’t ask me why I let you—uh—transplant it. I don’t know. The deal is this. Doc Collins and I put Shau into a happy home—we just have to hope we can make it stick—and you, Andy, destroy every marijuana plant on Luna One you know about. All right?”

Sandra was flipping daggers Andy's way, but it wasn't necessary. He remained gently unflappable, touched his hand to Sandra's knee. "Why, sure, Carp. Sure. That's a bargain—and a good one, too. I didn't favor the grass too much anyway. Want me to bring the plants to you? There aren't many of them."

"Just pull them up, Andy. Recycle them into Idaho potatoes. I don't need to see them." I made to leave.

"Will we know who has Shau," Sandra asked, "so we can—"

"Sure. But nobody else. Nobody. Right?"

I made to leave again and Sandra touched the dogs, got up and kissed me fully and sweetly on my surprised mouth.

I MADE my way slowly through narrow passages which I now thought of as dry runnels, to the twelfth level. Home. Being a minor deity, I thought, is not altogether without compensation. I told Carole what I, with Collins, had done. And she overwhelmed me, she did. I can't say I put up any resistance.

"WHY did Carp do it?" Sandra Rikishin asked Andy.

"You overwhelm me," Andy said.

"That's nice, but not to the point. Why did Carp do what he did?"

Andy thought this over for some time, though Sandra was distracting him. "How can I say?" he finally asked. "He likes Peking-ees, obviously, and cats and other dogs, but I don't think that's it. He

wants Luna One to survive. And he has his own ideas how it must do so."

"Bless him," Sandra said.

They played with the dogs and went to sleep.

VI

*... fill my precious glass,
and let it glow . . . If you can
only make me drunk, mine
host, it is enough. No longer
shall I know the sorrow of a
strange land.*

Li Po

LITTLE OTTO wasn't little any more, but everyone still called him that. He was a short-haired domestic tabby and his knowledge of Luna One exceeded that of any human. He was mostly gray, with white on his paws and parts of his face—he was handsome and, watching his demeanor, one had to think he was aware of this. His adaptation to lunar gravity made it seem that cats had been designed for it in the first place. If the passage was long enough, Little Otto simply flew down it, touching the floor but fleetingly, now and then. There were two other male cats on Luna One, but they had learned not to tangle with Little Otto. There were three female cats, and Little Otto made his rounds frequently, forever checking things out, evaluating.

Thus, when the Milfords, on the eighth level, after considerable discussion, decided not to give Princess (their short-haired domestic tabby) her pill, Little Otto was the first to know. The sounds of that

night must have penetrated fifty yards in all directions, through all the hangings and partitions, the two cats at the center of a sphere of intoxicating cacophony, but no one seemed to mind. It quieted down in the end and no report reached Winter's desk, nor did John Edgar hear of it. Nor did Pierre Charpentier.

Little Otto found his way back to his own place as if he controlled and owned Luna One lock, stock and barrel. Which, from his point of view, he did. He leaped upon the bed of his so-called owners (the McKays, level nine) and kneaded so forcibly and purred so loudly he woke them both.

"Good boy, Otto," Kenneth McKay said sleepily. "Damn cat has got me started," he said, turning toward his sleepy wife.

DAY 545—and I had a disturbing night for reasons that were still in my unconscious when I put my head on my pillow. Shau was doing fine, his presence not brought to official attention, not that I knew of. As far as I knew pot had been eliminated from Luna One. I trusted Andy Rikishin. Yet my sleep that night was filled with edgy dreams.

I dreamed that Andy had double-crossed me, that the entire colony had gone junkie and there was no chance whatever to survive on the moon, let alone go to the stars. I dreamed that there were so many dogs you couldn't walk the corridors or climb the stairs without being made filthy—as in New York before the Canine Code. I dreamed there were so many babies a man couldn't get a good night's sleep. Tomcats added to the din in

that one. And I dreamed I couldn't sleep. This can happen in dreams, though you must be asleep to dream it, which seems a paradox of some kind. I couldn't sleep and thought to seek comfort by resting my head for a time on the plump cushion of Carole's stomach. I did so and heard her heart beat and this was comforting. I dreamed then that I was almost going to sleep.

But stay! Carole was sleeping easily, but her heart was going about a hundred and twenty times a minute. *She's sick*, I thought, *something is wrong*. But I knew Carole had great reserves of some kind of Amazonian strength and never got sick. So in my dream I figured it out—what I heard wasn't Carole's heart at all. She was pregnant and I was listening to my—son? Daughter? I knew a fierce pride for some moments, then realized that something was indeed wrong. Very wrong.

Then Carole gave birth to a child (a lovely girl, lovely) and Winter and the council met to decide what must be done. I had no vote. The sentence was for Carole to suit up and carry the defenseless child out upon the lunar surface.

I awoke shaking and leaped from bed, knowing the world was over. I walked back and forth within that small space and gradually disentangled dream from reality.

"What is it, Pete?"

"I had a bad dream. It's all right now."

Carole raised her head. "It's still about the puppy, isn't it?"

I said I guessed so and Carole

comforted me. A man needs comfort at a time like that.

She snored gently not long after and I felt myself dropping off. My girl's stomach is a pillow, I thought, and I scrounged about and got my head on it.

And there it was. *Lubdup, lubdup, lubdup* . . . a hundred and twenty times a minute, give or take five.

I DIDN'T tell Carole next day that I had discovered that I was a father. Would it be going too far to say that I was distracted, preoccupied, anxious and consumed with a sense of imminent doom? I would have to add that I'd wanted to, well, be a father for what now seemed a long, long time. I needed a psychiatrist, no doubt about it, but Project Design, in their not-so-infinite wisdom, had thought that rigorous earthside screening would leave room on Luna One for some more essential person. I thought about consulting my fellow councilperson, Linda Wellman, but abandoned that. The hell with it. The fruits of the Earthside screening included, so far: unauthorized production of alcohol; unauthorized growing of marijuana (this now, presumably, terminated); two unauthorized Pekingese puppies, one of whom continued to maintain a secret existence—and that *had* to be with the active connivance of more than the few people I knew were involved—and now at least one unauthorized human pregnancy, in respect of which I was accessory after the fact, as long as I knew about it and didn't say anything about it. I was accessory be-

fore and during the fact, for that matter, though that circumstance was beyond my then knowledge. That rigorous Earthside screening was bearing a variety of forbidden fruit that I knew of—and maybe there were more I hadn't heard about. If there were I wanted right now to keep not hearing about another thing wrong.

I spent some time thinking and wandering here and there in the dome until I began to collect questioning glances. I needed to think and to think alone. I could suit up and go for a walk on the surface outside, or I could lock myself into the Penthouse. Walking on the outside in quest of nothing, more than solitude required to commune with oneself was not smiled upon. So, the Penthouse.

I have not really spoken of this. The Penthouse was a kind of oasis or sanctuary or hideout—a small but airy space fitted with sofas, chairs, a bookcase, directly beneath the apex of the dome. Pleasant by lunar day and awesome by night.

Its door was one of seven in the entire dome to carry a lock. Access was free to anyone, but on a waiting-list basis. For reasons I thought I understood, someone in Project Design had decreed that no more than two persons could be in the Penthouse at the same time. And there was a time limit of one hour. Couples now and then went there to fornicate, of course, but the waiting list was never very long—it was an eerie place which did not appeal to all. But it appealed to me with force, particularly now. There was a waiting list, yes, but I was the

keeper of the list. Rank has its privileges. So I spent a bit of time up there the three or four days after hearing the fetal heartbeat of my child.

I'd thought at first that the new problem would submerge the others—the alcohol, dogs and cats—and indeed that was the case in the beginning, but very shortly I found to my consternation and added anxiety, that all the difficulties complemented and reinforced each other, revealing themselves as but different aspects of the same problem.

"CARP," Andy Rikishin said. "I've been looking for you." I'd been wandering around aimlessly, preparing myself for a talk with Carole.

"How's Shau?"

His face lit for a moment. "Just fine. We got away with that one all right. I guess." Then the clouds came over. "And I did do away with the pot," he said. "You know."

"I know. If you say so, Andy."

"But there's a bigger problem now."

Good, I thought. I'll submerge mine into yours, hence have less of my own to deal with. "Want to tell me about it in the Penthouse?" I asked. "Nobody there now."

"All right."

We went there. Comfortable chairs, lunar day, Eratosthenes out there and other features anywhere you wanted to look. Not much variety, though.

"The thing is, Carp—" Andy said and stopped. "The thing is," he began again, "Sandra is preg-

nant. Like about five months."

I looked at Andy, said nothing, turned to look out upon my crater.

"That's bad, isn't it, Carp?" I heard.

I faced him. "You might say that. You might say it makes a puzzle, a few pieces of which are clicking autonomously together." Andy gave me a blank look.

"It's The Mai and The Chairman all over again, Andy, but this time with people. Carole and Sandra—and hence you and I—are in the same boat."

He thought about that briefly. He was a bright boy. I could see he was glad to have company. "I thought Sandra's been putting on weight," he said. "I only found out last night."

"How?" I asked. "Did she tell you?"

"No. I, well, heard it. Her. Him. And thought I felt him move, too."

"Does she know that you know?"

"Yes. I told her right off."

"What did she say?"

"She said a lot, Carp, but what it came down to was that no fascist gang of cowards on Earth was going to tell her what to do with her body. She swore a lot. She used words I didn't know she knew."

"Yes. We have a problem, Andy, no doubt of that."

"What do we do about this one?"

"Good question. I don't have the answer to it yet. But I'm working on it." I put my hand on his shoulder. "Say hello to The Mai and Ling Ling for me. And to Sandra," I said. "She'll already know about Carole."

I left him to have a talk with my headstrong wife.

I KNEW you'd find out sooner or later, Pete. Of course. But the thing is this: a woman's pregnancy—or the lack of it, the avoidance of it—is the most important thing that happens in a woman's body. I don't think Project Design—" and here she interposed some descriptive words I hadn't known she knew either—"included one woman, one honest-to-God female in its decision-making machinery."

"Collins could have done an AB. Maybe even now—"

"No, Pete. This was no accident. I—and Sandra—are going to have our babies. Aren't you glad?"

"I confess that I am. But look at the problem. How many others? Luna One can sustain but so many."

"Yes. But we'll say how many—and when."

"I've got to go right now. But one final word for you—sweet-heart."

"Yes?"

"Whatever happens, you are one honest-to-God female woman."

Her look almost did me in, but I knew how much I had to do and I moved away. "You'll think of something," I heard her say.

I sought Antonio Scartia. I found him in his lab on the fourth level.

"Hi, Carp."

"Tony. I need to talk with you. Right now. All right?"

"Well, sure. I've work to do, but—"

"Now," I said. I pulled a book

from my pocket and checked my memory. "Nobody there. Let's go up to the Penthouse."

Tony followed me through the passages and I went into that place for the second time that day. We stood there warily. At least Tony was wary. I'd summoned him and he waited to hear what I had to say.

So I said it. "The fact is, Tony, that I'm in the middle of a sticky mess—along with some other folk—and I'd like to sit here quietly to think about it. With a good stiff drink or two to hand. You, Antonio Scartia, are the only one I know who can provide it."

VII

*It is said that while drunk
he attempted to kiss his reflection
in a moonlit river,
fell into the water, and
drowned.*

Traditional account
of Li Po's death

SCARTIA'S face didn't show much. If the input to his computer was overloaded he gave no indication of that. He was cycling, I saw, like an IBM 7071 dealing with an equation on the fringes of its capability. It took time.

Then: "I don't get it, Carp."

"Come off it, Tony. I know you had a still in your lab. You knew I knew and you moved it. I could have confiscated it at the time. I gave you a chance to hide it. And don't ask me why. I'm in more trouble than you can possibly ever be in on Luna One. So, Tony, let's drop the pretense and kindly bring me a drink. I'll leave you with your

problems, and you'll do the same with me."

Some more cycling in the computer and then the sun came out.

"As it happens," he said, "I do have a little something left over from a small experimental project. If I bring it to you you can hang me for it, figuratively speaking, that is. But you won't."

"I won't. And what is that outrageous grin about?"

"Just that I've always known there would be room for a—well, service organization like ours. Here—or wherever we'll go afterward. I'll be right back."

He returned shortly with what appeared to be a leather pouch, from which he extracted a glass and a corked liter beaker filled with amber fluid. Not just a little in the bottom, it was full. I relocked the door and we sat there at the top of our world.

"You haven't exactly given me a *quid pro quo*," Scartia said, "but I don't think I'm worried about that. You want me to go now?"

"Sit down a minute and have one with me, Tony," I said. "Though we both be on duty at the moment."

He withdrew a second small glass and filled it and mine. We raised glasses in a silent toast. Now I was the wary one, but I tried whatever it was and it was good.

"That is good, Tony," I said. "Thanks. Thanks very much. It isn't the alcohol so much as—something going back there." I nodded to the blue-green Earth.

"What's your problem, Carp, if you want to talk about it? I've got one of my own, matter of fact."

"I'll tell you," I said, wondering why I was taking this youth, boy, man into my confidence. "You're aware, of course, of the rules concerning reproduction on Luna One?" He nodded, permitted his left eyebrow a micrometric rise. "My wife is five months pregnant. So is another wife I know. Those are the main problems. There are others, such as an illegal Pekingese, no doubt some kittens here and there—what's funny now?"

"An awful lot of people know about Shau," he said. "Everybody except Winter and John Edgar, I'd say." Then his face clouded. "But the girls are another problem, yes. We'll have to find ways of taking care of that. I have news for you."

"Yes?"

"Gina is three months pregnant."

The computer was busy again, I could see in Scartia's eyes. New data had been thrust into the intake—he was working on it and I knew why I had brought him up to the Penthouse. I had done so only partly to ask him for a drink I knew he had and I wanted, a drink he wasn't supposed to have. Scartia was an organizer.

"How did that happen?" I asked.

"You know Gina. She's a tigress. She decided she wouldn't let anybody tell her what to do. She didn't tell me until after."

"They never do." We sat in silence for a time. "You begin to see the problem, Tony?"

"I think I do."

"If this is going on all through Luna One we're going to be in serious difficulty very soon. I don't mean you, the other presumptive

parents, me, Carole. I mean the colony. We have to follow rules. Or we die."

The level in the beaker was slowly falling. "You're right, Carp. You're right."

"You have any answers, then?"

"I might have. You?"

"Yes." I looked out at Eratos-thenes and thought about the Great Southern Butte in Idaho. I thought about Idaho potatoes, tubers that could be eaten and from which alcohol could be made. "Tony," I said. "Did you tell Gina not to take the pill?"

He paled a little in the harsh light of the dome. It was hot out there on the other side of the skin, but here, where it was needed most, the air-conditioning was adequate. "I did not, Carp. I swear on the Bible of my family, I did not."

"Neither did I tell Carole," I said. "Nor did Andy tell Sandra, he says, and I believe him."

ALL this was going into the Scartia computer. "So. The girls won't be told whether or when to have babies. They violate Project Design." A look of spurious virtue on his face for a moment.

"They violate Project Design in their way. Indeed they do. And we, the men, in ours, eh, Tony? Booze, pot, probably other things I don't know about."

"Well, if you put it that way. It comes down to, we won't let Project Design tell us what to do, how to run everything."

"This," I said, holding my small glass, "is a very fine product, Tony. What did you make it from?"

"Corn. Good Iowa corn."

"I thought so. But, you can see, Tony, that if every girl on Luna One decides she can get pregnant any time she wants to we're all in deep trouble. You see that."

"Of course."

"I am second in command of this colony. We must have discipline or we die. You do see that, Scartia?"

He smiled an ancient kind of smile—it seemed to go back two thousand years. He nodded. "I see. The discipline we need, yes. And we'll get it. But from us, up here, and not from those down there."

"You think we can do it?"

"As you say, Carp, we do it or we die. But takes—organization. I say we can do it." There was a light in his eye and I knew I had to say something.

"We'll have to do something or Luna One becomes a minus sign in the books of extraterrestrial exploration," I said. "This is good stuff, by the way. Let's finish it." Scartia emptied the beaker. "A certain reorganization will be necessary," I said.

"This is obvious."

"Yes. And it will be done. But there's something I have to say to you, Tony." He looked at me, eager, thinking and planning, building a new Luna One. "There will be no place here," I said, "for a Don Antonio, if you take my meaning."

He flashed those impossibly white teeth my way. "I know, Carp. I know. I do. There's no place here for the *cosa* you're thinking about. Not that kind. No way. If we wind up with a Don, it won't be me. It'll be Don Pierre."

That has a nice sound to it."

"Nonsense. Listen, Tony. We'll have to have a meeting. Tomorrow. Not a big one. Who, from your point of view, do we have to have?"

"We going to take over, Don Pierre?"

"Listen, Tony. Don't call me that. But we must get going, we must do something. Such a simple thing, for example, as finding out as soon as possible how many pregnant women we have here. And stopping any more conceptions forthwith. On terms the girls will accept. How many do we have? I wonder. They won't tell Winter and they won't tell their husbands until it's done. But they'll have to tell us. So who—as you see it—is us going to be?"

"Okay, Don—I mean Carp. Us is going to be you, me, Charlie Erskine, Andy, Bob McDonald, Doc Collins. For starters. Is enough? Did I leave anybody out?"

"You know a lot about Luna One, don't you, Tony? Those names would be on my list, too, though I don't know much about Erskine. He's part of your—operation?"

"Yes."

"How many stills?"

"Just the two. Production's pretty good, though. Why didn't you root them out? You knew we had one that day."

"**T**HE girls don't have it all, do they? I don't like to be told altogether what to do any more than they do. Than you do. Or Andy or Charlie. Or the dogs and cats, for that matter. The Mai, The Chairman, Little Otto, the lot.

Now, back to your list for a minute. You, me, Erskine, Rikishin, McDonald, Collins. Right?"

"Right."

"That list is fatally flawed."

Tony was startled. "How so?"

"You'd get it if you thought about it a little, but I'm in a hurry. No women on it, Tony. No women. What have these girls been showing us if not that they must be in on making the decisions that involve them? You think they'll let us dictate to them just because we're here on Luna One, and not back on Earth in Project Design?"

"Jesus. You're right all the way." He shook his head.

"All right. We'll have to think of whom to appoint to our, er, committee from the distaff side. Think about it and we'll all talk about it tomorrow."

"All right. So we meet tomorrow. Where and when?"

"This seems a good place," I said, looking again at Eratos-thenes.

"Not supposed to be more than two people here at once, Carp," Scartia said, putting me on.

"If we're going to change things we might as well start here. Anyway, we'll have more privacy here than anyplace else."

"One more thing."

"Yes?"

"This is no child's game we play here, Carp. The stills, sort of, were. Are. Taking over Luna One from Project Design is something else. There's one place we'll have to be very sure of."

"Yes?" I knew, but I was testing the guy I was beginning to think of as my lieutenant.

"The electronics bay. If Project Design got onto this they could send a lot of trouble up with the last supply ship."

"Can you take care of it?"

"I think so." I saw that he knew he could. "Carp?"

"Yes?"

He put the empty beaker and glasses into the pouch. "You'd already thought about the need to control the electronics bay, right?"

"Well, yes."

"Good. You don't have to test me any more, Carp. I'll be all right at what we have to do. Though I should have thought of putting women on the committee."

I began to deny that I'd been waiting to see if he'd bring up the vital question of Earth-Moon communication during our proposed reorganization, but had the sense to see that I shouldn't.

"All right, Tony, call it a test if you want. I did wonder if you'd see the absolute need to control that part of Luna One. You did. You get A Plus. I don't apologize for the test, understand."

"That's right," he said. "That's right, Don Pierre," and he was gone before I could reply.

I WALKED slowly back to my office. We didn't have much time. If many of the women on Luna One were pregnant (as the sample I knew about certainly indicated) we were already in bad shape and the least we had to do was stop the increase in fetal population right now. Yesterday. My formal responsibility was to approach Winter with this. Clearly

Luna One stood in need of change and Project Design wasn't going to be the instrument to effect it. Where would Winter be? I checked the names of the technicians and operators in the electronics bay. I knew them all and hoped they would be on our side. There were six of them, four boys and two girls. I decided not to wait for meeting tomorrow. I went to talk to Winter. He welcomed me with the usual frosty smile.

"I've been thinking," I said. "About the Pekingese puppies."

"Yes."

"What if the same thing happened with one or two Luna One women? The problem—or the solution—wouldn't be the same, would it?"

"Do you have anyone in mind?"

"No. But the puppies are in my mind and I think about the possibility."

"It would be a different problem, yes, and a more serious one. We're one over our quota right now. Five hundred and sixty-nine, which is one too many. No one will get a Conception Certificate until someone dies, obviously."

"I understand. But what if a woman does become pregnant?"

"Accidentally or by design?"

"Either way."

"It would have to be the same thing, either way. The *major* imperative of Luna One, according to Project Design is to control the population. You know this as well as I. We all do."

"Yes. All right, we've had one baby over the quota already and Project Design didn't go into too great a flap about it. What if we

have two or maybe three more?"

"If we had one more, Charpentier, the council might let it go—if it were convinced that it was a case of the pill's not working. But any more than that—"

"What?"

"They'd have to—go, that's all. Dr. Collins would have an unenviable but inescapable responsibility."

Not with my—son?—daughter? he wouldn't. Mine and Carole's. Andy's and Sandra's. Gina's and Tony's.

"What if the council voted to let it pass?"

"I would overrule. I can do that in some cases, you know—and this is one."

I knew that as well as he did, because I'd checked it out. What I was really up to here was a probing of Winter's attitudes.

"That would be a pretty tough line to follow," I said.

"That's right. Tough, but necessary. Does that answer your question, Charpentier?"

"It does. Thanks, Winter. I've been thinking about the puppies, that's what got me onto it."

THERE was no doubt in my mind that he meant what he said. It was getting late, but now I needed to call another meeting. I wished for some kind of telephone but there wasn't one, so I went out through the passages in search of Andy Rikishin and Antonio Scartia. I found them and led them back to my office. I told them about my interview with Winter.

"So," Andy said. "Unless we do

something, at least two dead babies. Ours."

"One of them mine, for sure," Scartia said. "Gina's only three months pregnant."

"Yes," I said to Andy. "At least one of them ours, yours or mine. And God knows how many other pregnant women there are on Luna One."

"We must move now," Scartia said. "Before tomorrow's meeting."

"You realize the importance of communications?"

"The radio to Earth?"

"Yes. Let's nail that down first, then confront Winter. Tonight." I gazed at my fellow mutineers. "You understand this begins to be serious?"

They nodded silently. I found the list in the clutter of papers on my desk. "These people are the crew of the electronics bay," I said. "Get them here as fast as you can."

"I know who they are," Scartia said. He looked at Andy. "You get these," he said, checking two names on the list. "I'll get the other three. One will have to stay on duty."

"You don't think we're moving a little too fast?" Andy asked, looking at me.

I started to answer, but Scartia came more quickly to the point. "How many more women on Luna One are going to get pregnant in the next week if we don't get going now?"

Andy and Scartia set off to round up five of the six operators of the communications gear and I sat there, alone for the moment, considering options. Were we in-

deed moving precipitately? The thought of the fetal heartbeat inside Carole told me, no, not fast enough.

In about fifteen minutes Andy and Scartia were back with five of the six operators.

The five: Linda Escalante, Irene du Uribe, Tadashi Shimizu, Paoli Bartolini and Illingworth Whittle. Which left Karl Kraft minding the store. Of these five, two girls, three boys. They were all younger than I and I thought of them as such, boys and girls, though they were really men and women. Linda was from Argentina, Irene from Brazil. Tadashi from Yokohama, Paolo from Milano and Illingworth from London. It had been difficult at first to know what to call Illingworth, a name not easily susceptible to familiarity, but those who knew him had settled on Whit.

The eight of us in my office now. Mostly they had to sit on the floor—I had a small office. I addressed the delegation from electronics.

"This may come as a surprise to you," I said. "Our colony is quite possibly in grave danger. It is probably that Luna One will, at least temporarily, have to be out of all radio contact with Earth, particularly with Project Design." I had my audience, all right. "It is likely that we—a group of us, some of us—will have to neutralize Mayor Winter in some way and undertake to run the colony under new rules, rules we make ourselves."

"Why, Carp?" asked Tadashi Shimizu.

"It's not a short story," I said. "Let me ask you something first.

You girls," I said, looking at Irene and Linda. "Are either of you pregnant?" Some consternation. I looked at the boys. "And you," I said. "Is the wife of any of you pregnant?" More consternation. "All right. Our colony is in trouble because at least three women in the colony are unlawfully pregnant. These are the wives of Andy, Tony and me. We don't know how many more there are. But if the ones we know about are any sample you can see the trouble we're in. Winter's solution, and Project Design will certainly back him up in it, is to—well, do away with the illegal babies. So we propose to take over. It's obvious that we need your help."

THEY all started to talk at once. I raised my hand to silence them. "Before we get onto that, however, how about you, Linda?"

"I'm not. But I've been thinking about it."

"Irene?"

"I have to say—maybe. I didn't take the pill and I'm four days overdue."

"Paul know about this?"

"No. I didn't tell him."

"The pattern continues. You three!" I said, nodding to the men.

Tadashi and Paolo said, not as far as they knew. Whittle didn't know either but thought his wife, Ilse, had been putting on weight lately.

"So. Are you with us or not? You can see why we need you."

"Winter would kill the babies?" Linda asked.

"He would. Or, rather, he'd have

Doc Collins do it. And he would have full official backing."

"No doubt of that?" Tadashi.

"None."

"Then I for one am with you," Tadashi said.

"So am I," Linda said. "Obviously. Though I'm not sure yet."

The other three made it unanimous. So that made eight of us out of the five hundred odd.

"We'll need Karl, too," I said. "Will one of you relieve him and send him here?"

Tadashi left and a few minutes later Karl Kraft came into the office. I explained the situation. "My wife isn't pregnant," he said. "Not that I know about, anyway. And this amounts to mutiny."

"I don't know what word to put on it," I said. "But are you with us or not?" I noted Scartia's vigilant pose here and knew how important he would be in whatever it was we would wind up doing.

"I don't know. This is all very new and I need to think about it."

"There's not much time to think about it."

"How about survival of the colony on Winter's terms. On the terms of Project Design, that is?"

I looked at Andy and Scartia. "No way," Scartia said. "Not if it's your kid being put to sleep out there in the deep freeze. No way. Our course is clear, Karl. The question is, are you with us?"

"What if I'm not?"

"You'd better be," I said. "This is a matter of life and death. Several lives and deaths we know of—others most likely. You can see that."

"Best you be on the right side,"

Scartia said and he communicated something I hadn't. Kraft got the message.

"When does this takeover happen?"

Scartia, Andy and I looked at each other. "The sooner the better," I said and the other two nodded.

"Okay," Kraft said. "My wife isn't pregnant—" and he stopped.

YOU'VE seen a human brain at work? No, nor has anyone, but there are times when it seems that this is what you're watching and this was one. Each to his own imagery. Mine was rather old-fashioned: reels of magnetic tape spinning, memory chips (figuratively) flipping and flopping, lights dancing on and off on a handsome display panel.

"I'm with you," Kraft said.

"Good." We shook hands all around. The girls left with the three men from electronics. "From now on," I said, as they were leaving, "there will always be two people at the station. Until we're squared away. Understood?"

Murmurs of approval and understanding.

"Do we go see Winter now?" Scartia asked.

"The sooner, as has been said, the better. Andy?"

"Let's put it to him right off, I say. But what do we do after we've put it to him?"

"We'll play it by ear as we go along." Scartia nodded. "Let's go."

We strode rather awkwardly, I thought, into his presence.

"The hypothetical case I put to you this morning wasn't hypothetical," I said. "The fact is that our three wives, each and every one, are pregnant. We don't propose to put up with the doing away of the babies. Will you go along with us?"

He sat there quietly. Cool, real cool.

"I suspected as much, Pierre," he said. "In answer to your question, no, I shall not go along with you. We shall, all of Luna One, go along with Project Design." He opened a desk drawer. "As it happens," he said, "this was a possibility not overlooked by Project Design. I'd hoped it wouldn't come to this. But I am not without resource, Pierre. And Scartia, and Rikishin. There will be no mutiny on Luna One." He made to reach into the drawer.

"Don't move," Scartia said quietly. "Don't move, Winter."

Winter rested his right hand on his lap. "Better not," I said. "What is it?"

"A button, that's all." Winter said. "I push it and Project Design gets a message you can in no way stop. A separate transmitter," he said. He placed his hand on the front edge of the drawer. "I can touch it before you can touch me," he said to Scartia, who had edged toward the side of the desk.

I looked at Scartia. He nodded. "There's a black box in there, all right."

"Yes there is," Winter said. "And if one of you comes one step nearer, I push it. It's automatic from there on out, can't be shut off."

We stood our ground.

"We're taking over," I said. "For the survival of the colony. It won't work the way Project Design wants it to. God knows how many pregnant women we have here already. We can control our birth rate and lives ourselves, but we—particularly the women—won't let Project Design do it. It won't work, Winter. You'd better come along with us."

"I guess I'll have to push the button, then," he said, still cool. Very cool.

"Don't move that hand," Scartia said.

"So what happens if you push it?"

"They'll send ships. They'll put you down. Luna One *must* survive, you see."

"We see and we agree. But it will survive our way, not theirs. Not yours."

"You're wrong," Winter said. And he moved his hand.

"Don't—" Scartia cried. But the movement was halfway there, so Scartia made one of his own. A flash of light flew (almost gently, it seemed) through the short distance and landed in Winter's fifth intercostal space. A sliver of silver glinted in the light. Winter sank back into his chair, slowly, gracefully, his hand withdrawing from the drawer.

"No other way," Scartia said to him.

Andy was pale. No doubt I was, too. "Good throw, Tony," I said. "Now there are some things we must do. Right now."

"Yes. Yes, Don Pierre."

We took first things first.

If heaven loved not the wine, a Wine Star would not be in heaven.

Li Po

THERE was no morgue on Luna One. This would have been an extravagant use of space. Recycling of the departed had been thought of, but even Project Design hadn't been able to go along with that. What we were left with, then, was a plot not too far from Luna One, tastefully positioned behind a pile of stored goods and assorted debris, where we were meant to scoop out shallow trenches to receive our fatalities, of which this was the second.

It will be understood that we could not go on the intercom, there being none, to announce the sudden death, by acute coronary attack, of our leader. There had been talk of two-meter FM to keep everyone in touch with important news, but that had been vetoed somewhere along the line. What we had was a duplicating machine and a lot of passages.

"We'll have to get Doc Collins in on this," I said. "I know he's on our side, though we haven't kept him in touch with what's been going on the last hour or so. Andy?"

"I'll find him." He left.

Scartia and I alone with the dead one. "I had to do it, Don Pierre. I did. You know?"

"I haven't hit you for it, have I? I deplore violence. But I agree you had to do it. It was his form of violence or ours. And call me Carp."

"All right."

Andy came back with Collins.

"Doc," I said. "We've had a sudden heart failure here. Our leader has fallen. We'll need, I guess, for Project Design, a death certificate. At least an oral one over the air, right?"

Collins saw the neat gash. I filled him in.

"All right," he said. "First things first. Let's plant him."

IT WAS the beginning of the Luna One night, but the middle, just about, of the lunar day. Collins and Andy left, came back with a litter and straps. The four of us, pall bearers now, carried our awkward burden down to the lock. We met two people on the way. We told them someone had died. Who, they had asked. Winter, we had said. They'd hurried off to wherever they'd been going before we'd run into them in the passages.

We suited up, next to the skin at ground level, and carried the body out onto the lunar surface, then behind the storage pile and the junk to the place where the other one was. Two shovels there, unmoved since we'd put Jeff Barnes down. I stood watching, now and again looking up at Earth, while Andy and Scartia dug a shallow trench. I remembered seeing old tapes of the Apollo missions, with the dust moving ever so gently. It was like that now, but we were on a different mission.

"That ought to do it," Scartia said. All the suits had a common circuit. We could talk, but no one else could hear us.

"Ashes to ashes and dust to

dust," I said. "If the women don't get you, the liquor must."

"I didn't know you were an anti-quarian," Collins said. "Someone could come up here a thousand years from now and see this bird didn't shuffle off with a coronary, you know."

"That's right. I don't think anyone will, though, do you?"

We went back inside and unsuited. Collins and Andy put the litter and straps away. We met in the electronics bay. Irene and Tadashi had the duty. "You'll be interested to hear this," I said. "Put me on the horn."

Now we had a brief exercise in bureaucracy. I told Project Design that Mayor Winter was unexpectedly dead and they said that was too bad. I put Collins on and he did violence to his Hippocratic oath. Then I got back on and they said I was now mayor and to carry on under all appropriate regulations and to appoint an executive mayor without delay. I said yes, and did it at that moment by winking at Antonio Scartia.

I thanked Irene and Tadashi and told them I'd be in touch with them in the morning. We left the electronics bay and I spoke to my three colleagues.

"We are now going to talk for a few moments and we are going to have a drink. With our girls. In the Penthouse. In five minutes."

Carole was fussed at me because I was late home and hadn't been in touch. I told her what we'd done and that we were going to have a party, or wake of sorts, and she came along with me to the Penthouse. Scartia arrived a moment

later with Gina, a container of amber fluid, and eight glasses. Then the rest were there and we filled the glasses and looked at each other and up at Earth.

"To survival," I said and we drank to that.

"Now we will spend an hour or so here and talk of what we must do next—how it will go, beginning tomorrow. We will have to communicate with five hundred-plus people. It is, excuse me, a new ball game."

We drank to that, too.

"In one way we're right back to Project Design," Collins said.

"How's that?"

"Right on target. Five hundred and sixty-eight people."

So we had a small party there, sitting on the top of our small world. Carole and Sandra (they were the first, after all) exchanged glances that I thought I understood and I was glad to see that they included Gina immediately. Not that Gina could easily be kept out of anything.

Then the glasses were empty and the party was over and Carole gave me a glance I *knew* I understood.

"We've work to do," I said. "Tomorrow. Good night."

Scartia and Gina gathered together the container and the glasses.

"Good night—Don Pierre," Scartia said.

I was too tired to make a point of it and Carole was pulling me along, her hand possessively in mine, so I shrugged to or at something back at home that had come with us out here and we went to our place. ★

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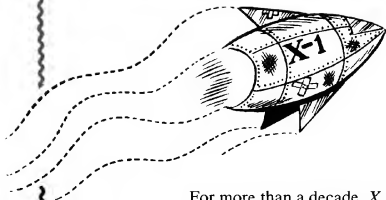
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